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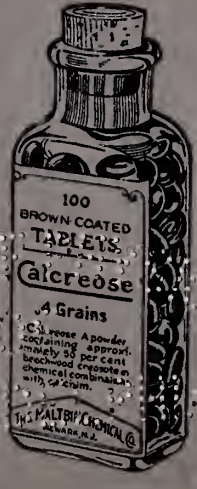

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WESTBROOK SANATORIUM

RICHMOND, VIRGINIA

The sanatorium is a private institution with 135 beds, located in the Ginter Park suburb, midway between trolley lines, within ten minutes ride of the heart of the city, and on the Richmond-Washington Natiinal Automobile highway. Midway between the North and distant South, the climate of this portion of Virginia is almost ideal. Nearby are the many reminders of the Civil War, and many places of historic interest are within easy walking distance.

The plant consists of twelve separate buildings, most of which are new, located in the midst of a beautifully shaded fifty-acre lawn, surrounded by a hundred and twenty-acre tract of land. Remoteness from any neighbor assures absolute quietness.

The large number of detached buildings makes easy and satisfactory and congenial groupings of patients. Separate buildings are provided for men and women. Rooms may be had single or en-suite with or without private bath. A few cottages are designed for individual patients.

The buildings are lighted by electricity heated by hot water, and are well equipped with baths. The water supply for the entire institution is derived from an artesian well on the grounds, of approved therapeutic value.

The scope of the work of the sanatorium is limited to the diagnosis and treatment of nervous and mental disorders, alcoholic and drug habituation. Every helpful facility is provided for these purposes, and the institution is well equipped to care for such patients. It affords an ideal place for rest and upbuilding under medical supervision. Four physicians reside at the sanatorium and devote their entire attention to the patients. A chartered training school for nurses is an important part of the institution in providing especially equipped nurses—both men and women—for the care of the patients.

Systematized out-of-door employment constitutes an important feature of the treatment. Wonderful work in the arts and crafts is carried on under a trained teacher. There are bowling, tennis, croquet, billiards and pool.

The sanatorium maintains its own truck farm, dairy and poultry yard.

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THE VARIATION OF THE CONCEPTION OF MEDICAL EDUCATION

President's Address Presented to the Fifty-Sixth Annual Meeting, Beckley, June, 1923.

By JOHN N. SIMPSON, M. D.
President W. Va. Medical Association

In the evolution of the practice of Medicine there have been many radical changes. It began as a function of the priesthood, enveloped in ignorance, superstition and mysticism. At the first there was no scientific basis but was entirely experimental, and yet out of the experience of every primitive people has been developed a practice of medical art which has cared in a way for their needs.

We are filled with wonderment at the achievements of the Chinese. Hindoos, Chaldeans, whose records show that they were familiar with such difficult operations as removal of calculi from the bladder, the crystaline lens for cataract. This is magnified when we reflect that they were ignorant of human anatomy, as it is acquired by dissection. The prejudice which was fostered by the priests who considered it a sacrilege, delayed the establishing of medicine upon a scientific basis.

The papyri of Egypt show that the embalming of the dead which required the removal of the viscera, enabled some of their priests to become better acquainted with human anatomy than any of the older civilizations until the time of the Greeks. At first the Greeks studied by watching men in training at the gymnasia. This was supplemented by the dissection on lower animals, both dead and alive. Human dissection was not achieved until after the Alexandrian conquest. Alexander when he had conquered Egypt planned to build his capitol near the mouth of the Nile, but he died before the plan was consummated. However in the breaking up of his empire, Egypt fell to the lot of one of his generals, Ptolemy, who built Alexandria. He and his successors

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were wise statesmen, patrons of learning and scientists. They assembled in Alexandria, the largest and most varied library in the world. They brought together men interested in the Arts and Sciences. Here arose the famous Alexandrian school of Medicine, connected with the library and museum, which flourished from 300 B. C. till 200 A. D. Not only was human dissection encouraged but the king himself was interested in the work. Much of our knowledge and terms of anatomy was worked out here. One will recognize many of the anatomical names associated with these famous Greeks.

Greek medicine begins with Hippocrates, born 460 B. C., at Cos, in the Island of Cos. He traveled extensively in Greece, Asia Minor and Egypt. He has been called the Father of Medicine. He established the humoral theory of diseases which was accepted for 2000 years. While his anatomical knowledge was faulty and many of his theories are no longer accepted, it is truly marvelous the insight he had and it is no wonder that future generations regarded him as inspired. His father and grandfather were distinguished physicians. He was a descendant of Aesuulapius, the god of healing, on his paternal side and from Hercules on the maternal. He was connected with the service of the temples which were the hospitals in those days. He wrote on fractures and dislocations, also a treatise on Injuries of the Head. He kept accurate histories of his cases, emphasized the influence of diet, hygiene and exercise. He was very careful in his observation of the patient, the color and state of the skin, mucous membrane, the various secretions and the dejecta, the facial expression, the eye, movements of the body, temperature, pulse, abnormalities of the senses. He left 42 Case Histories which remained without parallel in the history of medicine for 2000 years. He urged the physician to know the various diseases in their specific tendencies and in their relation to the constitution of the individual patient, so as to be able to foretell their course and outcome. Hippocrates repudiated the supernatural in disease and was the first to separate medicine from philosophy.

The Hippocratic oath, formerly taken by all graduates in medicine, is the basis of our professional ethics.

Foremost among the famous men of the Alexandrian school who enlarged our knowledge of human anatomy are Erasistratus and Herophilus. They distinguished for the first time between sensory and motor nerves. Herophilus wrote a treatise on the eye, improved the cataract operation, practiced surgery and wrote on obstetrics.

Nearly every famous physician during the period of this school was educated at Alexandria, but the most distinguished was Galen, who practiced during the 2nd century, A. D., in the Roman capitol. He wrote extensively upon Anatomy and the practice of medicine. His writings were followed by the profession for more than one thousand years, as if they were the Bible. Many of his statements, both on structure and function, have been discarded, but they were far in advance of his time.

Galen's theory of the circulation: The food, absorbed from the alimentary tract is carried by the por-

tal vein to the liver and converted into blood. The blood thus enriched by the food is endowed by the liver with nutritive properties, summed up as natural spirits. But the blood thus endowed is still crude blood, unfit for the higher purposes of blood in the body, is carried by the vena cava from the liver to the right side of the heart some of it passes from the right ventricle through innumerable invisible pores in the septum (the left ventricle) As the heart expands (Diastole) it draws from the lungs through the vein like artery (Pulmonary vein) air into the left ventricle, and in that cavity the blood which has come through the septum is mixed with the air thus drawn in, and by the help of that heat, which is innate in the heart, which was placed there as the source of the heat of the body by God, in the beginning of life and which remains there till death, is imbued with further qualities, is laden with vital spirits, and so fitted for its higher duties. The air thus drawn into the left heart by the pulmonary vein at the same time tempers the innate heat of the heart and prevents its becoming excessive.

Thus from the right side of the heart there is sent to the body generally along the great veins, and to the lungs along the artery like vein (Pulmonary artery) a flow, followed by an ebb, of crude blood endued with natural spirits only, blood serving the lower stages of nutrition. Blood flows through the artery like vein (Pulmonary artery) to the lungs for the nourishment of the lungs, just as it flows through the other veins for the nourishment of the rest of the body; in both cases there is an ebb and flow along the same channel. From the left side, on the other hand, there takes place along the arteries to all parts of the body a flow, followed by an ebb, of blood endued with vital spirits, and so capable of giving power to the several tissues, to exercise their vital functions. As this blood flows from the left heart along the vein-like artery (Pulmonary vein) to the lungs it carries with it the various fuliginous vapors which in the fermenting activity giving rise to the vital spirits, have been extracted from the crude blood, and discharges these into the pulmonary passages.

Arterial blood laden with vital spirits reaching the brain there generates the animal spirits, which pure and unmixed with blood, existing apart from the blood are carried along the nerves to bring about movement and to carry on the higher functions of the body.

In the times of the Greeks mankind had made a fair start in the quest of natural knowledge both in things not living and living. The search had been carried on till the second century A. D. Galen had expounded the structure and the use of the parts of the body of men. As Galen passed away inquiry into natural knowledge stood still. For more than 1000 years the great Christian Church was fulfilling its high mission by the aid of authority, but authority, as with the growth of the church it became more and more potent as an instrument of good, because at the same time more and more potent as a sterilizer of original research in natural knowledge.

The Church held the gates of learning, and they who entered were bidden to tread her paths and

hers alone. Her methods became the methods of all scholars. The written word took the place of the made world. The pursuit of truth ceased to be the looking into the phenomenon of nature and the seeking for the reason why. As spiritual truths were learned by the study of the of the revealed word, so anatomical and medical truths were to be sought, not by looking directly into the bodies of men and thinking over the phenomenon of disease, but by studying what had been revealed in the writings of Hippocrates and Galen; these became the Bible for the anatomist and the doctor. The dark ages began in Western Europe with the decay of Arts and Sciences.

With the rise of Mohamedenism and the Arabian conquest in Asia, Africa and Spain, the cultivation of learning passes to the East. The Nestorian monks, who did not believe in the divinity of Jesus, were expelled from the Eastern Roman Empire at Constantinople. They had always been greatly interested in medicine and carried with them the Greek sciences and were welcomed by the Arabian and Saracen Sultans, who became the patrons of learning. The Nestorians founded hospitals and medical schools, translated Greek medical books, philosophy and poetry into Arabic, and while the Arabs did not add greatly to our knowledge, they kept alive what they had received to be later passed on to Europe, by the way of the Moorish universities in Spain. The Arabian translations of Hippocrates and Galen were translated into French, Italian and English, and led to a revival of investigation which was most fruitful, first in Italy.

There great universities were founded in the rival commercial cities whose rulers were the patrons of learning. In these schools medicine held a high place. Human dissecting was again practiced but not much progress was made until 1543 when Andreas Versalius published his Structure of the Human Body. This marked an epoch in the history of Anatomy, Physiology and Medicine.

Vesalius was a native of Louvain, Belgium; was educated in Louvain, later at Paris under Silvius. He graduated M. D. at the University of Padua, where he was made a professor of Surgery and Anatomy. He began to teach Anatomy in his own way, doing the dissecting himself. He read Galen, as was the custom, but not finding it to agree with his own findings, he did not hesitate to believe his own senses. He cast Galen and his writings to the winds and taught only what he himself had seen with his own eyes and what he could make his students see. Students flocked to his lectures amounting, it is said, to 500. His works were very complete although his understanding of physiology was faulty.

Vesalius, Eustatius, Fillopius, Sylvius and others had dissected the heart, the arteries and veins with their valves and had done many vivisections, but they failed to understand the circulation.

In 1553 Michael Servitus published his Restitutio Christiansmi. In this he taught that the blood passes from the right ventricle to the left—not through invisible pores in the septum, as taught by Galen, but is moved in a long passage through the lungs and by them is prepared, is made bright. It is

transferred from the arterious vein to the venous artery, in fact what we call from venous to arterial blood, a mixture made in the lungs of the inhaled air with the blood, which the right ventricle communicated to the left.

The religious doctrines in the book in which he denied the divinity of Jesus, was repugnant to the church, so he fled from Rome, with the mistaken idea that religious freedom obtained at Geneva. He took up his abode there, but he found one Pope just as intolerant as the other. Calvin believed in the freedom of conscience, as the Puritans of New England, providing it was his brand of religion. Servitus was told to retract his statements and when he refused he was burnt at the stake. All the 1000 copies of his book were destroyed except two. One of these is in the National Library in Paris. It is kept open at the passage I have quoted.

The world owes to Wm. Harvey our present conception of the circulation of the blood. In 1628 he published his De Motu Cordis et Sanguinis in Animalibus. He like all the distinguished anatomists of his day was educated in Italy. The valves of the arteries and veins, the structure of the heart, and even the lacteals had been known, but it remained for him to explain the circulation. His experiments on living animals had shown that the ligature on a vein left the part toward the heart empty and the distal part full; of an artery the reverse was true. The valves of the veins opened toward the heart, of the arteries away. If he tied the vena cava the heart became empty. If he tied the aorta the systemic arteries were empty, but the systemic veins and lungs and heart were full. The only link which he guessed was the presence of capillaries connecting the arteries and the veins. This was discovered by Malpighi a little later.

This was one of the greatest contributions to science and was readily accepted. By such discoveries as this a beginning of a sound scientific basis was made for medical knowledge. Medicine is both an art and science. As an artist the physician's hand must have all the agility of the sculptor or wood carver, the ear, through the refinement of sound, of the musician, the eye the perfection of the microscope, the nose the acuteness of the bloodhound and even the taste must play its part at times. As a scientist he must be especially grounded in Biology, Chemistry, and Physics, because of their daily application in the diagnosis and treatment of disease. But of the two, the Art of Medicine is the older and the more important. The conflict as to which is the more important has been waged for centuries with the swing of the pendulum from one extreme to the other.

Following Wm. Harvey, in England, Thomas Sydenham called both the English Hippocrates and the "trooper turned physician" became one of the most famous of England's practitioners. In his view practice is the touch-stone of theory. Sydenham's predominant interest in the immediately practical caused him to turn from problems in medical science for which he saw no prospect of an early solution. He says, "Etiology is a difficult and perhaps an inexplicable affair and I choose to keep my hands clean of it." The whole philosophy of disease con-

sists in working out the histories of disease and applying the remedies which may dispel them, and experience is the sole guide. Sydenham made a careful study of fevers, the varieties of malaria, and used Peruvian bark in their cure. The great plague during the reign of Charles I. killed 41,000. Sydenham speaks of it as "the scourge for the enormity of our sins," and considered it not amenable to ordinary treatment.

In 1675 he described an epidemic which was similar to our influenza of 1918. He improved the treatment of smallpox. He carefully differentiated the stages of syphilis, recognized its transmission to the offspring and its communicability from a child to an uninfected wet nurse.

John Hunter illustrates the scientific view. Like Darwin he was a tireless collector of specimens of natural history which formed the nucleus of the Hunterian museum. Jenner was his pupil. Both were interested in the problems of immunity. Hunter's museums contained 13682 specimens, including 2773 fossils. In comparative anatomy Hunter made the first great attempt to arrange in concatenated systems the diversified facts of that branch of science. He recognized the close relationship of the monkeys, primates and men. He held that the modifications that occur in animal structure tend to progression rather than to retrogression. He was the first to enumerate the principles of the resemblance of the phase of the embryonic life to the series of the inferior forms of animal species. This idea is expressed by saying that the human embryo in each of its stages of development resembles that mature form of some species lower than itself. Hunter regarded science as the essential basis of practice. He is now regarded as the founder of scientific surgery. He made use of a thermometer to study temperatures. His study of teeth placed dentistry upon a scientific basis. He cured aneurysms by ligating the artery. His study of gunshot wounds gave him a place among the founders of modern military surgery.

John Hunter laid the true foundation of venereal disease. He had the courage to inoculate himself with syphilis and to study the results over a long period of time before knocking the disease down with mercury, as he expressed it. He differentiated Hunterian Chancre from Chancroid. He established the three stages of syphilis and that the third stage was not communicable.

The time of Harvey was contemporaneous with that of the settlement of New England and that of Hunter with that of the American struggles with England.

Our first physicians were educated in England or Scotland and were not numerous. The first medical school was founded in Philadelphia in 1765 and today is continued as the University of Pennsylvania. Dr. John Morgan was a pupil of Hunter in London and Cullen in Edinburgh, the two best schools in Great Britain. Dr. Wm. Shippen, a graduate of the University of Edinburgh, was first professor of Anatomy. In 1769 Dr. Benj. Rush became professor of Chemistry. The college of Physicians and Surgeons, a part of Columbia University, N. Y., was founded in 1767, as a part

of the Kings College. It has the honor of being the first school to confer the degree in course. Robt. Tucker and Samuel Kissam received the degree Bachelor of Medicine in 1769 and M. D. in 1770.

The training of physicians in a country with few medical schools and among a population scattered over such a large territory became largely the Art of Medicine and was similar to the apprenticeships which were served by mechanics in learning their trades. A student read medicine with his preceptor who might have several students at a time. The student not only read the few books which were available but he learned how to compound the medicines, assisted the preceptor in all his office work, traveled with him to see his patients at a distance, learning in the most practical way the symptomology of disease and the method of treatment. In a way bedside instruction on a small scale as we now have it in hospitals. After he had gained enough of the knowledge he started into an independent practice for himself.

This sort of instruction was sometimes supplemented by a course of instruction attending lectures at a school in one of the larger centers. In those days the profession was not troubled with State licensing boards. Anyone could practice if the people were willing.

Gradually this gave way to a course of training entire at the medical colleges and with the exception of anatomy and chemistry the work was almost entirely lectures and usually the same lectures were repeated in each of the two years. There were amphitheater clinics, but no bedside instruction as we now have it in the wards of our hospitals. Students began practicing upon dispensary patients as soon as they entered college. This change was an advance over the apprenticeships in that it introduced the scientific basis of the physician's training.

From this beginning the course was enlarged to a three and finally a four year course. New scientific courses were introduced and hospital facilities were introduced so that the student could better acquire the art along with the science.

The imperfect preliminary education of the students did not enable them to appreciate the sciences offered, so gradually the entrance requirements were raised from about an eighth grade to a high school education. Then two years of college work composed largely of the pre-medical sciences, chemistry, biology and physics, since the problems of the causes and the treating of diseases are so dependent upon these sciences for their elucidation.

The proper relationship of the art to the science in the physician's education is one that has followed the swing of the pendulum in this country. The awakening of medical education to the importance of the sciences as a basis for the practice caused them to over-emphasize their influence and to teach them as abstract sciences as if they had no relation to medicine. This view was held the latter part of the nineteenth century and the beginning of the twentieth. Students were told they were to learn their anatomy, physiology and chemistry for the sake of the sciences themselves and were told that it would not be well for first or second year medical students to be seen around the amphi-

theater observing clinics which they were in no way ready to appreciate.

But, strange to say, by some mysterious transformation, just as soon as he became a third year man he was in a position to grasp the clinical subjects perfectly and could forget the laboratory entirely. Gradually a revolt has taken place against this system. In the last few years at the meetings of the Association of American Medical Colleges the criticism has become so strong that the pendulum is towards the beginning of the training in the Art of Medicine just as soon in the first year as possible so that side by side with the learning of the facts of anatomy and physiology there will be associated the application of these facts to the treatment of sick patients. In this way introduce the future physician into the atmosphere of the practice of medicine at the earliest possible time. Likewise to continue the scientific subjects throughout the third and fourth years by calling the professors of these subjects in consultation to clear up the problems in anatomy, pathology, physiology or pharmacology which may puzzle the clinician or surgeon. In theory this seems very simple and we hope this can be done. It would add interest to the first two years and accuracy to the last two.

There has likewise been a change towards the matter of research in the medical schools and the matter of teaching. It has been urged that research should be a part of every teacher's work, with the result that much of the work turned out or ground out, has had little or no value, and men who could do that kind of work were often almost valueless as teachers. The trend now is that teaching should be the primary consideration and while the teacher may not have the genius for investigation, if he has been well trained he can appreciate and interpret the results to his students often more satisfactorily than the research man, leaving the matter of research to the larger endowed institutions, where that alone can best be done. There are very few men who, like Osler and Welch, combine the great qualities of being original investigators and inspiring teachers.

Great critcism has been made of the fifth or intern year as it has been carried out at many hospitals, where the intern has been likened to a cheap orderly, so that instead of being a year of further instruction and the physician prepared skillfully to handle any ordinary case, he has learned only to be a lacky to the operating surgeon or the visiting physician.

The efforts of the committee of the A. M. A. to classify hospitals has resulted in improvement. No hospital can boast of a class "A" rating unless systematic instruction for interns is carried on by the staff and where careful records are kept of all patients. In this way only will the year of internship become what it is purported to be, a fifth year in medicine.

ORATION IN SURGERY

END RESULTS OF LABOR WITH RESPECT TO THE SOFT PARTS OF THE PASSAGE

WALTER N. ROWLEY, M. D.
Huntington, W. Va.

The conduct of labor is rapidly becoming a specialized procedure and with specialization more atten-

tion is devoted to the future conditions resulting from the passage of a child through the parturient canal. The mechanism of labor must be thoroughly understood as well as the anatomy and physiology of the genitalia.

Anatomy

The parturient canal in the normal physiological labor extends from the uterine cavity to the outside world and is divided into three essential divisions: the cervical, the vaginal and the perineal.

The obliteration of the cervix, its effacement and dilatation are necessary before the passenger, the child, may pass on to the vaginal portion.

The vagina is supported in a muscular sling and lies between layers of fascia arising from these muscles, and emerges from the canal through the genital hiatus. The genital hiatus is triangular in shape and has its base on the posterior surface of the pubic and its apex at the union of the levator ani muscles in the median line, the perineal body. Through this tringular aperture emerges the urethra above the vagina and close to the pubic bone. The rectum emerges posterior to the vagina and behind the hiatus, surrounded by fibres of the sphincter ani. This musculo-fascial diaphragm which closes the pelvic outlet is made up of the two levator ani muscles and the two coccygeus muscles. These muscles extend from the pubic to the cocyx and fuse in the median raphe or perineal body. The only opening in this diaphragm is the genital hiatus. This is strengthened on its superficial aspect by a strong double membrane closing the sub-pubic angle by stretching from one descending ramus of the pubis to the opposite one. Contained between the layers of this membrane is the deep transverse perineus muscle. The triangular shape of this fascial support has given it the name, triangular ligament. The genital hiatus is bordered by the levator ani muscles, fibers of which run from the posterior surface of the pubic bone to the rectum and derive the name, pubo-rectal fascia. The fusion of the deep levator fascia and the rectal fascia along the margin of the hiatus go to form a rounded edge. To this edge is attached the triangular ligament, thus strengthening and closing a potential hernial site.

The sub-peritoneal space harbors the blood vessels, nerves and lymphatics and is filled with a network of strong connective tissue fibres and some unstriped muscle fibres. The vagina and rectum are surrounded by this connective tissue which forms the paracolpium and the paraprocteum. The base of the bladder rests upon the thin layer of connective tissue running from the cervix to the posterior border of the pubis. These fibers are known as the pubo-cervical ligaments or fascia. This subperitoneal connective tissue plays the major role in retaining the pelvic viscera in position. These pubo-cervical fascial fibers are of great importance in the production of cystocele and their union in the cure of cystocele. The pubo-rectal fascia holds an equally important position in the occurrence of rectocele.

Excessive, and especially sudden strains force the viscera downward upon the pelvic diaphragm which, though thin, is powerful. Contractions of the levator group of mus-

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cles produce an upward lift and shallowing of the pelvic cavity and a narrowing of the genital hiatus, all tending to give resistance to the downward pressure. The uterine ligaments, the round and sacro-uterine, only serve to tilt the uterus.

Childbirth causes injuries to the muscular, fascial and connective tissues of the pelvis. The triangular ligament may be torn, one or both pubo-rectal loops of muscle evulsed from the pubis, the genital haitus greatly dilated, the pubo-rectal and pubo-cervical fascia torn. These injuries are evidenced by cystocele, rectocele, pelvic relaxation and uterine prolapse. Cystocele is a descent of the bladder due to sagging separation or rupture of the pubo-cervical connective tissue.

Rectocele may be high or low. When high it appears as a bulging of the posterior vaginal wall and descends sometimes over an intact perineal body. It is due to tears of the fascial investment of the rectum high up. When low, the pubo-rectal fascia and perineum are involved in the laceration.

Prolapse manifests itself in varying degrees. The first degree of prolapsus uteri being the descent of the cervix below the level of the ischial spines. The second degree, when the cervix reaches the vulva, and the third, beyond this.

These three conditions are the most common results of childbirth. The less common conditions occurring, aside from cervical lacerations, are fistula, pelvic bone and joint injuries and coccygeal injuries. Most fistulas are a result of trauma with secondary necrosis although occasionally they may be perforative due to instrumentation.

The presence of infection makes pressure necrosis continue to a point of perforation and prevents healing.

Rupture of the pelvic joints and of the symphysis pubis has occurred though it is rare.

Injury to the coccyx is usually in the form of a fracture or a traumatic arthritis with sometimes a dislocation and often a chronic peri-coccygeal cellulitis.

To return then to the principal results of labor upon the pelvic soft parts.

Laceration of the structures of the genital hiatus, unless they involve the anal sphincter, do not cause marked symptoms when occurring alone. The relaxation which so often follows laceration is more often the source of the symptoms as the dependent structures above descend in turn and it is the combination of injury which produces the trouble. Practically never does the pelvis diaphragm escape injury. By rupture of the fascial sheath, by over stretching and consequent loss of elasticity, or by rupture of fibres within the sheath, these injuries are not apparent. They cannot be seen on post partum inspection. Only when there is a break in the mucous membrane do the lacerations become apparent enough to demand attention. This however is wrong. The perineum that tears easily and in which a second degree laceration occurs early, suffers less often than the long slowly dilated one. The overstretching has so relaxed and ruptured the fine connective tissue fibers that cystocele and rectocele occur. When the perineum tears early this overstretching does not occur and if repair is carefully done on an automatic basis, the result is

often better than the slow dilatation. The tissues to protect from rupture are the pubo-cervical fibers which support the bladder and the pubo-rectal fibers which separate the rectum from the vagina. When the fetal head descends along the pelvic canal the principal resistance offered to it is at the pelvic floor. The bi-parietal diameter reaches the narrow pelvic plane before rotation is complete and as it passes the narrow plane deflection begins. It is this deflection of the head which causes the rupture of the recto-pubic fascia and the tears of the levator ani and the triangular ligament. If the perineum is very slow to dilate and is resistant the pressure exerted against the pubis produces trauma and rupture of the cervico-pubic fascia. However the descent of the head against or through an incompletely dilated cervix produces such trauma to the pubo-cervical fascia as to make cystocele a practical certainty. The full bladder during the second stage acts in the same way. These conditions occur in every confinement and it is only the degree of injury which places the end result within the scope of symptom production.

The cervix must be considered here, primarily because it is the first ring through which the passenger must pass from the uterine cavity to the vaginal cavity. The tears occurring in the cervix are most often lateral or bi-lateral and are due to the fact that the head enters the inlet in the transverse diameter and when the cervix is improperly or incompletely dilated the occiput and sinciput are the points of tension and rupture occurs when pressure from the two points meets the cervical tissue. Posterior cervical tears are due to pressure of the presenting part against the promontory of the sacrum with the posterior cervix between. Instruments applied to the head through an incompletely dilated cervix cause lacerations at the point of contact with the cervix.

Knowing then what end results we may have, it is not sufficient to satisfy ourselves with a live baby and mother and consider the duty done, but these complications which so often produce partial or complete invalidism, neurosis, chronic pelvic disease and many attendant discomforting symptoms, must be guarded against and remedied when present.

What can be done to prevent laceration of the cervix? It may be better answered by saying, what shouldn't we do in order that the cervix is not lacerated? Whenever it is possible the membranes should be preserved. Bagging or mechanical dilatation should not be done when not imperative. Manual dilatation with the pains is a procedure to be frowned upon. The most inexcusable procedure is the application of forceps within an incompletely dilated cervix.

In an effort to reduce the injury to the pubo-cervical fibers complete dilatation is essential for otherwise the auterior lip is dragged down with the descending head and the bladder support thus ruptured. A pernicious practice is the old midwifery practice of expulsive efforts by the patient, the bearing down before dilatation is complete.

To further protect the bladder, rapid delivery in the second stage, by any method, should be avoided. As previously mentioned, resistant perineum and full bladder produce

a trauma directly to the pubo-cervical fascia. Further the use of forceps. Here much can be learned. Too few know the mechanism of the second stage and the application of traction is too often in the direct axis of the plane of the outlet when it should be the axis of the bending canal.

The deflexion of the head must be slow. Whenever possible the deflexion should be converted to an axial position, the head coming over the perineum in neither deflexion or flexion.

In the conduct of the second stage of labor these damages to the pelvic soft parts must be considered with great concern. The life of child and mother is first, the injury next. When the perineum is resistant in a primapara, laceration is unavoidable. The laceration may be apparent or not. A break in the mucosa makes it evident but many serious lacerations occur in the body of the muscle and in the fascial planes though no break in the muosa is noted. A tear is ragged, unclear and more of a rupture than a tear. Because of this it is infinitely better to cut the perineum in the median line in all but occiput posterior cases or large babies when the lateral episiotory is best because of the added protection to the rectum. The wound is clean and sharply defined. Its repair is facilitated. The resistance is overcome, the over distension diminished and the length of labor shortened.

Further the deflexion stage of labor should be conducted under relaxation anesthesia. The reflex resistance is thus removed. Combined with episitomy the length of the perineal stage is shortened, eversion of the rectum and its attendant complications of fissures and hemorrhoids avoided, the sphincter protected and all without the patient's knowledge of pain.

Pituitrin to hurry the second stage is mentioned only to condemn it. When these precautions are observed the end results do not appear except in the exceptional cases. Cervical lacerations when present should be carefully repaired thus minimizing ulceration and erosion of the cervix. Episitomy wounds should be repaired immediately post partum when the mother's condition does not contra-indicate and all vaginal mucous membrane tears closed. The bladder emptied again post partum to detect any deep injury to this organ.

So conducted the second stage of labor does not hold the terrors of the past and the gynecological surgeon is robbed of many secondary repairs. The mother's convalescence is shortened and her puerperal period more useful. Subsequent pregnancies are not attended with pelvic discomfort and the pelvic floor is like unto a primapara and the former scar can be incised and repaired again. I have delivered one woman of three successive pregnancies by this technic and the perineum is nearly that of a nullipara after these three pregnancies.

ATHREPSIA

Read Before Raleigh County Medical Society, May, 1922

By O. B. LYNCH, M. D.
Beckley, W. Va.

There is in infants a chronic nutritional disturbance to which various names have been applied.

"Marasmus," "infantile atrophy," "alimentary decomposition," and "athrepsia" have all been used. Athrepsia, lack of nourishment, is most accurately descriptive of the condition, and therefore the term of choice.

I shall first state briefly some of the theories of causation.

Atrophy of the intestinal tract with diminution of both secretion and absorption was at one time held to be the cause. This theory has generally been abandoned.

Heubner believed the condition due to diminished absorption by the intestinal tract leading to a negative energy balance.

Czerny thought the cause to be low absorption and assimilation of fat, with the excess of formation of fatty acids in the intestinal tract. To neutralize them alkalies are called from the tissues. In diarrheal stools sodium and potassium are chiefly lost; in constipated stools, chiefly calcium salts are lost. Demineralization, a negative salt balance occurs. There is also an increase in the formation of NH^3, and an increased NH^3 elimination in the urine. Czerny held demineralization to be the essential factor and that it may be so extreme as to so impair cell function that tissue building can no longer be carried on even though absorption from the intestine should reach the normal.

Pfoundler considered the body cells the primary source of the trouble and the trouble in the intestinal tract secondary.

Czerny, Keller and Pfoundler all found the NH^3 increase already mentioned. They did not however find the increased urinary output of organic acids of which we now know and therefore did not postulate their presence in excess in the intermediary metabolism.

Marriott considers athrepsia the result of prolonged poor absorption and utilization of food, an assimilation below the given infant's caloric requirements, a state of negative energy balance. "Stored glycogen and fat are first consumed. So to speak the infant is living on his hump." Next body protein is burned and the stage of negative nitrogen balance is reached. Maintenance of existence cannot now be long.

I shall now consider briefly the blood itself and the circulation in athrepsia.

Drs. Marriott and Perkins made an extensive study of the protein content of the serum by the refractometric method. They found the concentration of serum protein absolutely and relatively lower than the average of normal infants. There was also a decreased red blood cell count and haemaglobin. Since the blood volume was diminished the lower red cell count could not be explained by assuming hydremia. The conclusion reached was that there is actual destruction of the blood along with tissue loss elsewhere in the body.

A logical result of the diminished blood volume is a diminished volume flow. This was often found to be less than 1/5 of the average for normal infants of the same age; occasionally less than 1/10. It was also observed that during convalescence the volume flow uniformly increased and that the degree of circulatory improvement bore a close relationship to the improvement in the nutritional condition of the infant. The electrocardiographic tracings of Dr. Hugh McCulloch

made on the infants in this study showed deviations from the normal in some. These deviations perhaps mean impaired circulation in the intrinsic cardiac vessels and disappear with convalescence.

Another result of the decreased blood volume is constriction of the arterioles. This leads to a piling up of the corpuscles in the capilarries and a red count often 20% higher than that of the venous blood. This arteriolar constriction is the probable cause of the gray color of the skin. It is possibly a compensatory mechanism for the maintenance of blood pressure which notwithstanding falls below normal levels.

Another frequent result of the low blood volume and volume flow is the grave danger to the infant when there is added even mild dessication.

In uncomplicated athrepsia body fluid concentration does not occur, the colloidal osmotic pressure of the blood is not raised, as shown by the work of Oscar Schloss, and hence urinary output of waste products is not impaired. The mild acidosis present is in part due to acetone bodies and in part to the formation in excess of organic acids.

Utheim studied a number of infants with uncomplicated athrepsia —those without tuberculosis, syphilis, or known infection. She was also impressed with the close relationship between the degree of athrepsia and of circulatory impairment. Her study revealed the excess NH^3 elimination of other observers. She uniformly found also an increased elimination of organic acids, and she concluded that these organic acids were the expression of decreased oxidation in the tissues. This disturbance in oxidation she believes is due to the diminished blood volume and volume flow. Invariably with the improvement of the nutritional condition of the infant the NH^3 and organic acid excretion approached the normal levels.

In this same series of infants Utheim studied the absorbing power of the intestine. She found a food loss as high as 26% of the intake, 21% above the average of normal infants. With improvement in the nutritional condition the food loss in every instance fell.

There is of course no direct proof (Marriott) that volume flow in the intestines or other internal organs is as greatly reduced as in the extremities.

The condition of athrepsia in the infant has been very closely duplicated in the rabbit by prolonged starvation. The blood showed decreased serum protein, red count, blood volume and volume flow. The diminution in volume flow was more marked than that of blood volume. On restoration of normal feeding in these animals the blood volume was almost invariably regained before weight increase occurred. Those in which restoration of blood volume did not take place died. It seems certain, therefore, that the relation of blood volume to nutrition is an important one, and that "the so-called period of repair in athrepsia is the time during which a restoration of blood volume is taking place."

Athrepsia begins chiefly in early infancy and is most common in the artificially fed. In many instances it follows prolonged underfeeding both by breast and artificially, without evidence of syphilis, tubercu-

losis or other parental infection, or congenital anomaly. In many one or more of the factors named are present. Prematurity is a common cause. Often the condition already developed largely owes its persistence to a parental infection. The athreptic are peculiarly susceptible to otitis media, respiratory tract infection, pyelitis and furunculosis. Not infrequently in hospitals these infections seemingly sweep a whole ward. Overfeeding is a common cause as is also a food which meets the caloric requirements yets lacks certain essential elements. Athrepsia often is the result of prolonged or recurrent diarrhea especially if inappropriately managed.

An infant with diarrhea absorbs less food than normally even if fed the usual amount. But ordinarily in diarrhea a period of starvation is called for, then a period of food reduction, and gradual return to the customary feeding. In a word, the infant for a time has a food intake below his caloric requirements. This intake need not be very long continued before athrepsia is produced.

Athrepsia may be of all degrees of severity from moderate underweight for age to a skin covered skeleton. In the severe type in which the infant resembles "a little old ape, weak and wizened," the clinical picture is so striking and text book description so familiar that no more here need be said.

Collapse may occur at any time without warning. The rectal temperature is frequently 95° or 94° F. The pulse slow and feeble.

Two infections, otitis media and pyelitis, are often overlooked in the athreptic because they frequently produce no fever.

The weight of course is below the normal for the age. Often rapid gains foster the belief that all is well, and often a loss more rapid before the nutritional edema is suspected. A rapid gain on a low caloric intake should always lead one to suspect nutritional edema.

The outlook is bad in the premature and those under three months of age, especially when breast milk is unobtainable. These infants do badly as a rule in institutions because of susceptibility to cross infection and lack of proper attention. Once the condition is established there may be months of improvement and relapse before recovery finally takes place.

Naturally the most important phase of treatment is prevention—every baby when possible at the breast as long as desirable. Whether breast or artificially fed, there should be a proper feeding interval, and in the artificially fed intelligent supervision of the feeding, seeing the infant every two weeks no matter how well it is doing, often as necessary if not thriving. Appropriate treatment of all infections in the artificially fed even though they seem trivial should be given. Knowledge of the normal weight curve, regular weighing and calculation of the caloric value of the food serve as valuable checks on correct infant feeding.

Once the condition has developed the problem is how to meet the infant's energy requirements while staying within his food tolerance. Unabsorbed food is "TNT"—likely at any moment to produce an explosion in the form of a severe or fatal diarrhea. The only rule then

is stay within the infant's food tolerance and raise that tolerance as rapidly as possible. Breast milk is naturally the food of choice because ordinarily the infant has a higher tolerance for it than for any other food. Tolerance for breast milk can be raised by using equal parts of breast milk and lactic acid breast milk. This is a troublesome procedure outside of children's hospitals.

In a word breast milk requires less HCL for optimum acidity (low buffer value) than does cow's milk. Other foods of low buffer value are lactic acid milk and protein milk.

These infants have a high sugar tolerance and often will take added sugar, especially mixed sugars up to 10%. It is important to calculate the caloric value of the food on the basis of expected weight, for the food requirements of these infants are only slightly less than those of normal infants of the same age. This calculation is best made on the calorie per kilo or calorie per pound basis. They often will not gain until receiving 150 to 200 calories per kilo of **body weight.** Some do not gain on less than 225. One in St. Louis Children's Hospital (Marriott's case) did not gain until given 282 calories per kilo of body weight.

Once the food tolerance is determined and is sufficiently high to cause one to expect a gain in weight it is important not to juggle the formula. As before mentioned there is a period of repair during which possibly the thing of great importance is blood regeneration. Occasionally a food increase leads to weight loss, the so-called paradoxical reaction because of diarrhea, or water loss without diarrhea, desirable if the latter. Volume flow can be increased temporarily by intravenous injection of glucose, using a 10% solution, not more than 20cc per kilo of body weight. The glucose thus given has food value, small of course. Glucose acacia may be used, 10 to 20cc per kilo of body weight. (Gum acacia 10gm., glucose 5gm., physiological NaCl to make 100cc. Centrifuge shortly before using.) The blood volume and volume flow increase are much more lasting than when glucose alone is used, acacia being a colloid. Both seem to raise food tolerance and so to lead to gain in weight.

Transfusion however is the most valuable form of intravenous therapy. Transfusion may need frequent repetition and in many athreptics certainly is life saving.

The important problems in the management of athrepsia then are:

1. Preventive.
2. Curative.

The important thing in both is thorough knowledge of infant nutrition. Drugs are of little value and are to be used chiefly in emergencies. Anhydremia and demineralization are to be kept in mind and promptly combatted.

THE SURGICAL GALL BLADDER

By R. J. WILKINSON, M. D., F. A. C. S.
Huntington, W. Va.

During the past few years there has been much written about gall-bladder infection. Some authorities adhering to the theory that the gall-bladder is a vestigial organ, therefore useless, consequently advocate its removal in every case where surgery is indicated. Other authorities of equal prominence, but probably in the minority, con-

tend that it is a difinite functionating organ and should not be needlessly sacrificed. This theory has more recently been strengthened by the experimental work of Rous, McMasters, Harrer and others who have demonstrated that the function was one of bile concentration which is effected chiefly by the lymphatics and that it is not a reservoir for bile storage as formerly taught. There seems to be some question whether or not the gall-bladder ever empties itself—certainly it has been fairly conclusively shown that it has no power of contraction.

The etiology of this condition or disease is not fully understood, notwithstanding the fact that many experiments have been done along this line. It seems that most observers are of the opinion that it is usually secondary to an intestinal stasis and that the bacteria are carried to the liver by the portal circulation or lymphatics, however, it is probable that any blood stream infection can be responsible for germs gaining access to the liver. The idea, as expressed by some writers, that bacteriae have a predelection for the gall-bladder mucosa and that the ducts and liver proper escape does not seem to be based on any sound process of reasoning. If it is admitted that bacteria gain access to the liver through the blood stream, then it is easily understood how the ducts and gall-bladder may become secondarily involved. Judd states that cholecystitis is frequently associated with an inflamed appendix in the female and with duodenal ulcer in the male. He believes that the infection originates in the appendix and extends to the gall-bladder by way of the lymphatics. Whether by the lymph or blood stream it certainly seems that cholecystitis is often secondary to an inflamed appendix, whether acute or chronic.

In reviewing the more recent literature on the subject I have been impressed with the fact that a majority of the leading surgeons advocate a cholecystectomy, practically as a routine, in every case coming to operation and that they advise surgery in all cases giving symptoms at all referable to this organ. The advocates of this method claim.

1—That the gall-bladder is a vestigial organ and useless.

2—That the infection is confined to the gall-bladder and by removal of this organ the infection is eliminated.

3—That by eliminating drainage following cholecystectomy (as advocated by Willis) that troublesome adhesions are prevented.

4—That the period of convalescence is lessened and the patient more comfortable.

5—That a larger percentage are apparently cured; secondary operations not being so frequently necessary.

6—That in trained hands the mortality is not appreciably increased.

Those who favor cholecystostomy for all cases except where the gall-bladder function is completely destroyed claim:

1—That the organ has a definite function; namely, bile concentration; while not necessary to life, yet it is desirable.

2—That the infection frequently, if not usually, originates in the liver and that the ducts, gall bladder and adjacent lymph glands become secondarily involved necessitating drainage.

3—That following cholecystectomy the pressure of bile in the ducts is markedly increased; causing a questionable effect upon the liver cells before dilitation of the muscle of Oddi (sphincter) takes place.

4—That the beneficial results obtained after cholecystectomy is not on account of the gall-bladder removal, but rather due to draining the liver and ducts into the intestinal canal by reason of the dilated sphincter.

5—That those advocating cholecystectomy are frequently removing normal gall bladders. In one clinic it is reliably but not officially reported that about 34% fail to show any pathology.

6—That due to abnormalities of the ducts the operation is fraught with considerable danger even in experienced hands.

7—That the end results obtained by the two methods show little variation.

8—In the event secondary operation is necessary the procedure is a comparatively easy one.

9—That there is abundance of evidence to prove that infected gall-bladders become normal after proper drainage.

10—That in cholecystectomy the immediate mortality is slightly higher in the hands of our most experienced operators and probably greatly increased in the hands of the less skilled surgeon.

11—That pancreatitis unquestionably accompanies cholecystitis in many cases and that these cases should be drained.

12—That the complications following cholecystostomy are due to stones that have been left or to lesions in adjacent organs.

While admitting that I may be biased in my opinion, yet I am thoroughly convinced that the argument favoring cholecystectomy is not based on as sound surgical principles as is the argument against the routine sacrifice of this organ.

During the past eight years there have been 75 operations performed at the C. & O. Hospital for gall-bladder infection, with and without stone. There has been only one death, this case dying suddenly one week following operation; since a post mortem was not done the cause was never ascertained. One case was taken home against our advice two weeks following operation and died a few days later from an obscure infection, probably of the liver and pancreas. So far as I am able to ascertain about 80% of the cases operated have remained well from one to seven years. With an operative mortality rate of 1.5% there remains 18.5% who were improved or unimproved.

Our observation based upon the study of approximately 200 patients that have been diagnosed cholecystitis, leads us to the following conclusions: That cholecystostomy is the operation of choice and should be done whenever surgery is indicated, except in those cases where the gall-bladder is contracted and consequently functionless. We believe that the bad results following this method are frequently due to stones that have been overlooked, or to the fact that drainage is not maintained a sufficient length of time and that annoying adhesions can be prevented if the proper technique is used in doing this operation. By using a large-sized catheter for drainage, inverting the edges of the gall-bladder with a purse

string suture, and using every care to prevent traumatizing the liver and adjacent organs there should be only a small sinus tract leading from the gall-bladder fundus to the abdominal wall. Under no circumstances should drainage be introduced around the gall-bladder nor should this organ be sutured to the abdominal wall. There can be no doubt but that a considerable number of cases giving symptoms referable to the gall-bladder can be cured by proper medical and dietetic treatment and I believe the time is near at hand when more of these questionable cases will be referred to the medical man for treatment. The method as outlined by Lyons certainly deserves most careful consideration, for it undoubtedly has a definite field of usefulness. While not being a panacea for all gall-bladder conditions, in selected cases it offers a palliation if not an absolute cure. In every case treated by this method in which we failed to obtain the dark or B bile, gall stones have been found present at operation. This may be a coincidence but is worthy of further investigation. These treatments have been carried out by my colleague, Dr. Vest, and the observations as above stated were made by him.

A. M. Willis, of Richmond, Virginia, has probably done more during the past few years to put gall-bladder surgery on a sound, rational basis than any other surgeon. His first important contribution was a paper advocating the closure of the abdomen without drainage following removal of the gall-bladder. This idea was based on animal experimentation and later demonstrated clinically. While severely criticized at first, the method is now practiced by most surgeons who perform this operation. Next, he advocated the "Ideal Cholecystostomy" in those cases with stone formation, without infection being present. Finally, Willis has decided that where infection is present in the gall-bladder and ducts that drainage is indicated and has consequently advised a cholecystostomy. In those borderline cases where the question of infection is uncertain, he is of the opinion that if any operative procedure is indicated it should be a cholecystectomy without drainage, since the symptoms occasioned by the post-operative adhesions will likely cause more discomfort than the original gall-bladder disease.

While I realize that the ideas as expressed by Willis are not popular with the leading teachers of surgery, yet I am confident that they are based upon sound surgical principles and believe they will be accepted as a most rational procedure in dealing with surgical gall bladders.

In conclusion we would especially emphasize:

1—That questionable gall-bladder cases should be given the benefit of medical treatment before advising surgery.

2—That every gall-bladder case should be carefully examined for other pathological lesions at the time of operation and if present should be dealt with along accepted surgical lines.

3—That cholecystostomy with drainage is the operation of choice if infection is present.

4—The reason for bad results following cholecystostomy can be attributed to overlooked stones, to pathological lesions in adjacent vis-

cera or to the fact that drainage was not maintained a sufficient length of time.

PLIGHT OF THE FAMILY DOCTOR DESCRIBED BY A TOWN DOCTOR

BY A PHYSICIAN

The prestige of the physician and surgeon is nowhere what it was at the beginning of the nineteenth century. The year 1900 was the surgeon's golden year from all standpoints. Medicine lacks the sensational cures, as for yellow fever, and the public, spoiled by wonderful medical success, has become more and more exacting. In the depths of its heart it bears a grudge against physicians because, notwithstanding the progress of science, people still die as our ancestors did in the Dark Ages. What the public wants is the physician's guarantee against death.

The New York State Department of Health reported in 1921 some 165 localities which had no doctor and that in 823 communities there was not a physician who had been out of college less than twenty-five years. Out of eighty-two applications for physicians from thriving villages and hamlets in New York, physicians were obtained for only half. The same situation exists in many other States. One town in New York raised a subsidy of $2,500 a year to keep its single physician. One of his nearest medical neighbors reported a drive of fifteen miles to cover a territory which a few years ago had several physicians. Many rural districts today lack medical service easily obtainable, of good quality and at a reasonable cost. The farmer needs a competent doctor within easy driving distance of his home and one who will give service for a fair compensation.

The effect of standardization of medical colleges and education, although it has produced better trained men, has reached the stage where it shows in a decreased number of graduates. Many medical colleges are limiting the number of their students so as to give better instruction. Most of the recent graduates in medicine are not willing to begin practice in the country but go to the cities. The tendency today is toward post-gradute study and then to go out as specialists, for this means a larger income with less work and without the irksomeness of a general practice. The specialist has regular office and hospital hours and is usually free from evening interference with his social life.

Between 1911 and 1919, in the rural districts of New York there was a falling off of 403 doctors, or 13.6 per cent, although the population had gained 7 per cent. City comforts and larger advantages attract the graduates of medical colleges to the cities, leaving the country deserted. The World War gathered many doctors into army and navy service and after their discharge the attractions of the city made them fail to return to the country.

Hospitals Not Adequate

Hospitals in the larger towns and cities do not take the place of a doctor for towns or rural communities. These places need resident physicians ready to care for minor emergencies, contagious and ordinary ill-

nesses. The general practitioner, whether in the city or country, is the man who must continue to care for the majority of ordinary cases. The specialist and hospital cannot take his place. Inhabitants of rural districts do not want an elaborate system of bureaucratic State medical aid such as has been proposed. Both farmer and doctor will protest against any tendency which means paternalism.

A large proportion of the doctors in rural practice have been out of college not less than twenty-five years. This means that most of them obtained their education in the form of a high school course or less, with two or three years in a medical school, an education much less expensive than that of today, and a start at least five years earlier in getting an income. To get a medical education today requires four years in an ordinary college, four years more in a medical college, usually one or two years spent as interne in a hospital, and perhaps post-graduate study. After this comes the slow upbuilding of a practice.

Such an education has been estimated to cost $2,000 to $2,500 a year. Against this must be compared the income of men in other activities of life who begin earning immediately after leaving the high school or college. Figuring the above and counting interest, by the time a physician is really on his feet with an income in excess of his expenses, he has an investment of from $30,000 to $40,000. This means an interest charge of about $2,000 a year. Besides the requirements of the medical college for a degree in medicine, the addition of a year as interne in a hospital, a fifth year is coming to the front as an essential for the degree of doctor of medicine or as a license to practice. Ten medical colleges and ten State licensing boards require this today.

As hospitals and medical colleges have come more and more under the control of non-medical men and lay organizations there apparently is a movement to lengthen the time required to obtain a degree of doctor of medicine and to increase the amount of ultra-scientific education required for a diploma. Another coming step in medical education is to limit the freedom and prestige of the legally licensed physician to practice the various branches of medicine and surgery under the plea that to properly train himself as a specialist a physician must have an additional and special training. Perhaps here lies concealed the cunning hand of the present groups of specialists to limit competition, helped by those who strive for the last iota of possible education.

In former days the specialist was developed from the general practitioner group by the natural process of experience along special lines, aided by periods of post-graduate work. No training is as desirable for the future specialist as a few years' work in general practice. This the up-to-date medical graduate who goes direct into post-graduate study and a specialty does not receive, and it weakens his general grasp and outlook. It makes his viewpoint narrow. Special committees, largely under the influence of specialists, are now studying the needs of the various specialties in order to suggest minimum courses of post-graduate instruction which physicians will be expected or re-

quired to take before they can be classed as specialists. This probably will mean from one to three years of post-graduate study. The graduate school of the University of Pennsylvania now offers regular medical courses of one to three years' duration for "appropriate certificates" or "graduate medical degrees" in some seventeen specialties. Of course, this is after a man has studied for and taken his M. D. degree.

What a Doctor Earns

The following advertisement in an August, 1922, medical journal gives an idea of what industry is willing to pay for medical service:

"Wanted at once, resident physician for an industrial plant. First aid, physical examinations, &c.; $250 per month, without maintenance. Eighi hours' service. Private practice permitted off time. N. Y. State."

Eight hours' service and private practice permitted are an impossibility and absurd. The $3,000 per year this advertisement offers is a fair example of the remuneration industrial surgeons receive. Public health and school physicians receive about the same, running from $2,000 to $3,500, rarely more.

The elimination of disease, the first duty of a doctor and of the greatest good to humanity, is cutting down the scope of the work of the general practitioner, whether in city or country life, and the agitator and the propagandist have found in the field of medicine plenty of room to ply their arts. They have gone so far as to make some of the public believe that socialism in the medical field would bring higher standards. This creates a perilous situation, for with the initiative and individuality of the physician removed, men of character, ability and energy would fail to enter the profession, and these are the type of men who keep medicine in the front rank of science. Free health service sounds well, but it is economically wrong. Although the public needs protection, it needs education even more.

Prevention of disease is a natural function of government, but free State health service should not be expected by those who can afford to pay. At no time have physicians neglected the needy poor; those deserving it can always receive the best of medical care without expense to themselves from the individual physician, the dispensary or the hospital.

In a certain city in this country a large number of health centres has been established under the auspices of the Board of Health. A large number of physicians in that city are serving in those centres either on a part or full-time basis. Full-time doctors receive from $1,500 to $3,000. The urological department is a fair example. In this department free treatment is advertised for man or woman, without distinction between those who can afford to pay and those who need charity. One of the physicians connected with this department, on a part-time basis with a salary of $760 a year, saw from fifty to seventy patients in a two-hour period three times a week. This is a factory type of quantity production with no individuality of treatment. The taxpayers pay the bills, the patients receive only mediocre treatment, and the individual physician is driven to the wall.

State health insurance is a serious menace to the medical profession today. It means classifying those who earn less than a certain amount into groups and having the State (the taxpayers) pay the physicians small amounts to care for the groups. The social uplifters are using all possible means to bring this about, not looking forward to the ultimate result. Many physicians believe that compulsory health insurance will be ruinous to medicine and reduce the doctor to the cheapest paid and most degrading contract worker in all the professions.

In eight States bills have been introduced to compel physicians to furnish medical care at 25 cents to 50 cents a call for about one-fourth of the population employed in our industries. This idea is being pushed by charity workers, public health agencies and officials and others interested in philanthropic work of the social uplift type. It would result in one of the greatest bureaucracies, bring medicine under the politicians' control, and ultimately require a large amount of the taxpayers' money. It would tend to pauperize the laboring class. Labor is worthy of a wage large enough to allow employment of a doctor of its own choice. Physicians practicing among the laboring classes on an independent basis would be driven from the field. The patient probably would not be allowed to choose his own physician.

Companion bills, apparently from the same source, have been introduced into many State Legislatures requiring physicians to be relicensed each year, perhaps re-examined, and where a physician was not willing to do the bidding of the social uplifters in State insurance practice his license or right to practice might be taken from him.

For nine years England has had national or State health insurance. It is still an experiment there; it is proving costly and by no means universally satisfactory. Public health conditions have not improved, and there is talk of repealing the act.

Bureaucracy is said to be the only form of government for which the philosopher can find no defense. The President of the Michigan State Medical Society predicts that in a short time department stores will install medical departments to furnish treatment for the sick at cut rates so as to attract customers and stimulate the sale of merchandise. Department stores now maintain drug and prescription departments. Medical departments are only the next step in evolution. Already they have optical sections, with hired oculists.

Inroads by the Nurses

In discussing nursing the President of the Connecticut State Medical Society reports that the graduate nurse of today is on a different plane from those of a quarter of a century ago. He states that the three-year course of training required for a nurse, added to the demand that the pupil shall have a four-year high school preparation, results in an overtrained individual so far as nursing is concerned. He says that the very term "graduate nurse" is fast becoming a misnomer, for these nurses either marry or become visiting, school, or district nurses, technicians or attendants in physicians' offices, positions which only by a very broad interpretation

can be construed as nursing under the usual significance of that term.

The trained nurses of today have ambitions far beyond their original sphere of caring for the sick in homes or hospitals under the direction of a physician. They desire to develop into some form of expert, such as nurse anesthetist, technician, instructor of nursing, school nurse, factory nurse, office assistant, child welfare workers and other positions in the field of public health work under civic and social agencies. In practically all these lines they become more or less independent of and direct competitors with the general medical practitioners. The number of nurses so engaged was estimated in 1921 as more than 10,000, and increasing fast. The work of these nurses today includes much which a few years ago was entirely in the field of the doctor.

Society through legislative action has assumed its natural right of regulation as to who shall practice medicine by stating the qualifications therefor. Legally speaking, this is part of the regulations that modern society has evolved for its own protection to safeguard the public from incompetent and unscrupulous persons. Practically, however, the medical practice laws in the various States largely have been secured at a great expense of time and labor on the part of physicians. The public seems to have very little interest in these laws believing that they are for the benefit of physicians. These laws do not deter the faker or the charlatan, and they do not prevent any new sect which may spring up from overriding their provisions. Enforcement of these laws has been left to physicians in great degree, usually acting through their medical societies. In actual practice this was proved most unsatisfactory. It is nobody's business to start action, and in most instances the law is rarely enforced against offenders.

It would seem as though the lack of rural doctors was only the beginning. The tendency today is for the medical graduate to go into a specialty, as this means an easier life and greater rewards. The grinding down of the general practitioner by the various means indicated is steadily increasing, and I venture to prophesy that it will not be long before there will be a shortage of general practitioners in the cities.

Is the practice of medicine worth while? This was the subject of discussion at a recent meeting of the Pennsylvania State Medical Society. The answer given by one physician was as follows: "If your ideals in life are money, ease, fame, the praise of your fellow-men, if you want to have a good time, if you want to be in society, if you want to marry a woman and make her happy instead of uncomfortable and miserable, keep out of medicine. You cannot have a home without some real woman, but as a physician's wife she must go through life without the silks, satins and furs of other women, must be deprived of social life and the many things that are attractive to her. The practice of medicine requires labor, self-sacrifice, self-denial and everything of that kind, together with much abuse."

THE REMOVAL OF THE TONSILS

Read Before the Greenbrier Valley Medical Society, April 12, 1923

My N. R. PRICE, M. D.
Marlinton, W. Va.

As a cure for the conditions of childhood, the operation of removal of the tonsils has been weighed in the balance, and found wanting.

On the other hand, it is becoming plain that the removal of these glands has a distinctly detrimental effect on the growth and welfare of the child. It is believed that the tonsils constitute a first line of defense against disease, and the fact that they are often the site of infections, diphteria, tonsillitis (follicular) and quinsy, in no wise indicates that they should be removed in their entirety.

In cases where the gland is markedly overgrown, to the extent of interfering with breathing, and even swallowing, the conservative operation of clipping the hypertrophic portion is amptly sufficient, and is a comparatively safe operation, usually not even requiring an anesthetic, and a portion of the gland is left to function. This operation it has become the fashion to utterly condemn by the specialists who are strong for the enucleation of the whole gland; a formidable and sometimes fatal operation, from suffocation under anesthetic, severe hemorrhage, or post-infection of the lungs.

The removal of the normal tonsils (often done) cannot be too strongly condemned, for the expected benefit on the growing child is disappointing in the extreme.

Dr. John A. Mackenzie, a throat specialist at Johns Hopkins University, in an address before a medical association, declared that the operation on the tonsils was "surgical insanity," and gave his reasons in detail, the chief being that the tonsils are very important and useful organs; and that there was no more occasion for removing an inflamed tonsil than an inflamed eye. In fact I would sooner have an inflamed eye removed in my own case than to lose my tonsils. His address was printed in a medical journal under the title of "The Massacre of the Tonsils." But what shall we say of the tonsil clinic, the wholesale removal of children's healthy tonsils? Of all roughhouse surgery, this is the roughest and most irrational of proceedures.

The tide has certainly turned in the performance of this most frequent operation in the past few years, and is becoming daily less frequent. The misguided enthusiasm of public health nurses in their inspection of school children, to recommend and insist on tonsil and adenoid operations led to many unnecessary operations in the recent past. It is the duty of the public press to warn the public that the most recent surgical fad is almost wholly discredited.

More than a year ago a distinguished London surgeon most solemnly warned the medical fraternity of England of the excess to which this proceedure had run, and resigned his membership in the Royal Medical Association, as a protest, as his views were not accepted by the great majority of the membership. At this time the views of

very many of the best in the profession are against the operation.

This protest is not made against the rational treatment of the diseases and conditions to which the tonsil is peculiarly prone; its disorders of function, infection and disease are many and various; but is a protest against indiscriminate removal, more particularly the complete enucleation.

In recent years it has been almost as common for children to be taken to the surgeon for the removal of tonsils as for removal of teeth, and rarely did a child escape without their removal when thus presented. As a matter of fact, the operation is rarely necessary, and should be done only after the most painstaking examination to determine the necessity therefor.

I wish to emphasize again the uselessness of the modified operation of "clipping" in cases of hypertrophied tonsil, which do not readily yield to medical treatment, both local and internal, leaving a portion of the gland to function.

These observations are not the result of deep scientific study of the gland and its functions, but rather the daily observations in a general practice of medicine extending over twenty years.

GASTRIC AND DUODENAL ULCER

By WILLIAM R. GOFF, B.S., M.D.
Parkersburg, W. Va.

The literature of this subject is already massive in volume, but unhappily its value is by no means proportionate to its bulk. The foundations of most of it are unsound. Physicians and surgeons of today are not wholly to blame. Our inheritance is deceptive. The "magic wand" has been passed from generation to generation until now we must be shown upon the fluoroscopic screen or have seen and felt the pathological lesion on the operative or autopsy table.

Baillie, Cruveilhier, Brinton and others may be read with interest and profit. These were followed by a large number whose teachings were rank error in connection with gastric and duodenal ulcer. Gastric ulcer was thought to be a common disease and easily diagnosed in the presence of certain symptoms. Duodenal ulcer was scarcely known, its occurrence rare, its diagnosis difficult or unattainable. Many conclusions were based upon false premises and upon such we have proceeded for many years toward the chasm of error. Unless we leave behind all these untruths and base our conclusions upon cases in which an ulcer really does exist we shall be following the "beaten path."

An ulcer is a visible and palpable lesion whether it be acute or chronic. There must be evidence of destruction and defense. The depth and crater may vary but the muscular coat must be involved and it may extend completely through all the coats an acute perforation being prevented only by the adhesions of the ulcer to the surrounding structures which then form its base. Such an ulcer will cause symptoms, the chief character of which is intervals of freedom between attacks of pain. The ulcer itself does not

always cause the attacks of pain, even though the crater is present because ulcers with craters and healed ulcers are often found at autopsy which did not produce any symptoms before death, but a renewed activity in the ulcerative process at the margin of the crater or acute ulcers surrounding the crater or on the opposite wall, the so-called "kissing ulcer." The breaking down of the scar whether due to the changes in connective tissue or following acute infections may contribute an acute exacerbation. In the smaller or acute ulcers there is clear evidence of obstruction to the vascular supply thus resulting in a defenseless area and the gastric juice shows the limits of the pathological condition. This type develops rapidly in consequence of a virulent infection and toxemia and probably heals as quickly. Clinically they become apparent only in the presence of hemorrhage or perforation; a dislike for food, epigastric pain, and vomiting may be attributed to such lesions. Presumably acute ulcers are multiple and in many instances the chronic ulcer may develop from one or more. The evidence of passing from one stage to another is unknown as far as clinical symptoms are concerned and only from those that give severe and recurrent pain can definite conclusions be drawn.

The chief clinical symptoms of ulcer of the stomach are pain, vomiting and hemorrhage and the most significant of these is pain. The regularity with which pain recurs after the same meal is one of the chief clinical symptoms when it is preceeded by a period of comfort. If a breakfast is taken at 7 a. m. and pain appears at 8 a. m. on one day, the same breakfast on all other days will be followed by the same hour of comfort and the appearance of pain at the same hour. A time table of one day, then, fits any other day. The quantity and quality of food and irregularity of meals make great variation in the periodicity of pain. The rhythm of the pain is one of the important clinical points in the differential diagnosis between gastric and duodenal ulcer. In gastric ulcer the pain which, after an interval, follows the taking of food gradually disappears before the next meal while in duodenal ulcer the pain continues until food is taken; that is, the rhythm of gastric ulcer is "food, comfort, pain, comfort" and then again food, comfort, pain comfort; of duodenal ulcer it is "food, comfort, pain" and then again food, comfort, pain—a quadruple rhythm in gastric ulcer and triple rhythm in duodenal lesions.

The variation in the time of the occurrence of pain after meals is due to the quantity and quality of food as well as the motility of the stomach. In about sixty per cent of cases of gastric ulcer the onset is one hour while in eighty per cent of the cases of duodenal ulcer it is two hours. Seasonal variation is common in duodenal ulcer and rare in gastric ulcer.

Hematemesis generally occurs from a chronic gastric ulcer especially when in large quantities but multiple acute ulcers may cause profuse hemorrhage and in such cases the mucosa may be studded with tiny ulcers and cause the stomach "to weep blood." Fatal cases of hemorrhage are usually from chron-

ic ulcers, that is, from an erosion of a vessel. Severe infections, toxemia of appendicitis, cirrhosis of the liver, "esophageal piles," and thrombosis of the splenic vein are causes which must be ruled out. In duodenal ulcer hematemesis or melena may occur but melena is far more frequent and in greater quantity.

Duodenal ulcer is more common than gastric, that is, about four to one and about five times as common in men as women while gastric ulcer is about the same prevalence in women as men; therefore, a diagnosis of duodenal ulcer is made with more confidence when a real ulcer history is obtained. There are many conditions which have their origin elsewhere and give a definite ulcer history and we are left unconvinced about the diagnosis. The fluoroscopic examination is of the greatest value in settling the diagnosis because it is by far more accurate than any other, clinical, chemical, or all other methods combined. It is so accurate that all clinical diagnoses must be confirmed by the fluoroscope or X-ray plate, Gastric ulcer especially is diagnosed only in this way or by the surgeon at operation, that is, unless the ulcer is seen we are never positive of its existence. Medical treatment based upon clinical diagnosis by symptoms leads to conclusions based upon false diagnoses and hence of no value. Therefore the diagnosis is left to the radiologist or the surgeon. Carmen and others have described the evidence that make possible the positive diagnosis in ninety-five to ninety-eight percent of cases which were confirmed by the surgeons. The "niche" or accessory pocket, the zone spasm of the stomach, the notch or crater on the greater curvature are the well known characteristics of an ulcer. The different types, ortho-, hypo-, and hyper-tonic stomach occur with equal frequency in cases of gastric and duodenal ulcer. Deformities of the duodenal bulb are characteristics of duodenal ulcer. Stenosis due to gastric or duodenal ulcer can be detected readily by the X-ray.

The examination of stomach contents following an Ewald test meal, or the fractional method of Rehfuss is an interesting time consuming procedure but of no value in the diagnosis, because from compiled statistics of known ulcers the gastric showed about fifty per cent have a subnormal curve, forty per cent normal, and ten per cent a hyperchlorhydria; while in duodenal ulcer twenty per cent show a subnormal curve, twenty per cent normal, and sixty per cent a hyperchlorhydria; and in cases of carcinoma of the stomach there is a variation from achlorhydria to hyperchlorhydria with the larger number in the latter; and other infections within the abdomen will also show a marked variation which does not lead to any definite conclusion.

Assuming that the diagnosis of gastric or duodenal ulcer is established the question arises as to the method of treatment to adopt in order to relieve the symptoms and remove the dangers of the disease. Most cases coming to the surgeon have had symptoms from three to ten years. Medical treatment consisting of restricted diet and appro-

propriate drugs has relieved pain and curtailed the attacks but the periods of comfort have been followed by more severe attacks; thus it has failed in its greatest aim, the permanent healing of the ulcer, and it is reasonable to believe that it fails in the majority of cases. The lesions are large and it undoubtedly takes much longer for the ulcer to heal completely than is thought. Hence, medical treatment to have a chance to do its work must continue over a period of six to eighteen months and must be carried out scrupulously and unremittingly. The cessation of symptoms does not mean that the ulcer is healed.

Before any treatment is instituted all sources of infection, especially those of the teeth, tonsils and accessory sinuses should be eradicated.

The predominating feature of all medical treatment is the administration of alkalis, the Sippy routine or some modification. In gastric ulcer where fifty per cent show a subnormal curve and forty per cent normal is there any physiological reason for the administration of alkalis? Would a restricted diet and dilute hydrochrolic acid sound more reasonable because the stomach cells need an acid medium? Gastric ulcer is comparatively rare so why subject such a large number of patients to such a routine unless the alkalis provoke an increase of acid later which is true of sodium carbonate; however, such is not the theory of administration of alkalis. In duodenal ulcer and carcinoma of the stomach about sixty per cent have a hyperchlorhydria and the alkali routine is the best medical treatment and usually gives relief from the pain and the patients are able to take simple foods which are easily propelled and digested. Even a suitable diet without alkalis will relieve a large number of patients who have had symptoms for years and the symptoms usually disappear as soon as there is improvement in the ulcer but its real condition remains unknown.

Many cases die from hemorrhage even though morphine, horse serum, intravenous calcium chloride, and direct transfusion of blood are carefully administered and those that survive are even placed on medical routine to have a fatal hemorrhage later.

"Between 1910 and 1921 there were seventy-five deaths in the Leeds General Infirmary from hemorrhage, perforation and peritonitis; sixty-one of these were from perforation, sixty were chronic and one acute; of the fourteen deaths from hemorrhage, thirteen were chronic and one acute ulcers. In the same period there were one hundred twenty-nine deaths from hemorrhage and perforation of duodenal ulcers, twelve deaths from hemorrhage all chronic ulcers, and one hundred seventeen deaths from perforation, twelve acute and one hundred five chronic ulcers." Does such a mortality list as this give reason for delayed radical treatment?

Many cases of gastric ulcer undergo carcinomatous change at the margin of the ulcer, whether the ulcer becomes carcinoma or is primary is unsettled but in either case the patient should have the benefit of radical treatment. Many of the so-called medical cases of gastric

ulcer are inoperable carcinoma and no surgeon cares to make an exploration to establish a diagnosis when the condition is not operable. A large per cent of cases of carcinoma of the stomach give a typical history of gastric ulcer and even twenty per cent of the ulcers that are excised may prove to be carcinoma only when seen under the microscope. Even the margin of the ulcer may show two types of carcinoma, columnar and scirrhus. Ulcers of the stomach whose craters exceed two c. m. in diameter are said to be malignant. Is it possible that craters of carcinoma are always large or that ulcers with small craters never become malignant? The best evidence that has been obtained in advancing this subject is from the specimens excised by the surgeon and studied pathologically because the post mortem is of little value since the greater part of the stomach is involved when death results. Malignancy of the duodenum is rare. Chronic duodenal ulcers are reported which extend close to the pylorus and on the stomach side are carinomatous. Whether the carcinoma is primary of the stomach or an extension of the ulcer is unsettled but the treatment certainly is surgical.

Does medical treatment ever lead to the permanent healing of an ulcer? First, the ulcer must be proven to exist by the radiologist, second, it must be proven similarly that the ulcer is healed and third, that it does not break down later. We do not have any such proof in any series of cases. The mortality rate in cases treated medically is far greater than those treated surgically. Sir Berkley Moynihan reports seven hundred eighteen cases of gastric and duodenal ulcers treated surgically with a mortality rate of one and six-tenths per cent, and over five hundred cases of duodenal ulcer treated without a death. W. J. Mayo reports eight hundred forty-nine cases for the year 1922 with a mortality of two and seven-tenths per cent and many of these were perforation and hemorrhage cases. If a case dies after an operation surgery takes the burden and if a case, which has had medical treatment one or more times, dies from hemorrhage or perforation should it not take the burden for the fatal termination? This is not an argument against medical treatment but a statement of facts which should pave the way to efficient co-operation between the physician and surgeon so that medical treatment will become safer and both will be anxious about the welfare of any patient that has a gastric or duodenal ulcer.

The surgery of chronic gastric ulcer has changed many times and even now it seems an unsettled question. Gastroenterostomy was the first operation practised and gave very good results but not good enough to meet the demands of the present time. The principles upon which it was founded have been proven false, that is, the delayed emptying time of the stomach occurs in a small per cent of cases as proven by the radiologist, and the neutralization of the stomach contents when only about ten per cent of the known cases have a hyperchlorhydria. It is entirely mechanical and acts in no other way. The occurrence of gastrojejunal ulcer at the site of the anastamosis has

caused many of the unsatisfactory results. Even the kind of suture material—silk and linen, has been claimed to cause these recurrences but the falsity of such is now well known. The simplicity of the operation has made it popular in the hands of inexperienced operators with a mortality rate higher than the radical operation by skilled surgeons with the claim that the shotened emptying time "gives rest" to the ulcer. It is often performed where the lesion that causes the symptoms is overlooked and only temporary relief is secured by the rest in bed and restricted diet. Carcinoma often develops in the ulcer for which gastro-enterostomy was done and the patient is sacrificed because the radical operation was not done at the right time.

Gastroenterostomy was followed by numerous kinds of operations for chronic gastric ulcer, namely, Billroth I and II, Polya, excision of the ulcer with the cautery as advocated by Balfour, by the knife combined with gastroenterostomy, together with many modifications of standardized operations carrying with them the name of the modifier. Sleeve resection has even had its day and is mentioned only to be condemned, because it results in an hour glass stomach and decreased motility and makes a secondary operation necessary and more difficult.

Moynihan says that gastrectomy is undoubtedly the operation of choice and can be done in about ninety-eight per cent of cases and the remainder where it is impossible, due to adhesions to the liver, diaphragm, and pancrease the cautery excision of the ulcer combined with gastroenterostomy seems best suited. It may seem useless to remove a large amount of healthy stomach tissue and increase the operative risk but so often the ulcer is malignant and can only be so determined after its removal that the radical procedure seems justifiable; besides the end results are far superior than in any other series of cases in the literature.

In duodenal ulcer gastroenterostomy gives good results in about eighty per cent of cases, fifteen per cent are slightly improved, and five per cent are unimproved. The excision of the ulcer combined with gastroenterostomy is fast becoming the operation of choice and many are resorting to the Finney pyloroplasty. Such a proceedure seems justifiable because it removes the disease and prevents the possibility of hemorrhage or perforation.

In cases of acute perforation of gastric or duodenal ulcers, only a plication of the ulcer should be done and the excision of the ulcer, gastrectomy, or gastroenterostomy deferred to a secondary operation when the patient is in better condition for such a procedure because the mortality increases in proportion to the extent of the operative procedure.

Hemorrhage from gastric or duodenal ulcer always causes great anxiety to the physician or surgeon and delay often results in a fatality. With the improvement and simplicity in whole blood transfusion it seems advisable to replace the blood volume and excise the ulcer and thus prevent another hemorrhage.

This resume of the literature and combined statistics of different clinics will have achieved its purpose if it leads to a more careful taking and classifying of gastric histories and a closer co-operation between physician, surgeon and radiologist.

Market at Fifth
Parkersburg, W. Va.

ANNOUNCEMENTS AND COMMUNICATIONS

Bloss please publish.—A. P. B.

June 4, 1923.

Metropolitan Life Insurance Co.,
New York

Yours of the 24th of May asking for some details of the death of W. H. Boudman received.

I most assuredly will not in any way assist your company. You are, or at least were the last I know of you, a "scab" company paying a "scab" fee for your examinations. Many long years ago I stopped my doctors from having anything to do with your company.

When you can pay the regular $5.00 fee that other companies are paying I shall be very glad to assist you.

At present I am far more interested in helping prevent the death of my professional brethren from malnutrition than I am in the popygut you put forth under the head of public welfare.

Yours for a decent wage,

A. P. BUTT.

Please add:

Since writing the above I had a talk with an agent of the Metropolitan. He told me of a certain district where all examinations are paid for at the standard price, the agent being allowed the privilege of himself "inspecting" all the risks under a certain amount. This particular district consists of a territory where the doctors have put up a fight for the $5.00 fee.

This agent furthermore told me that it was entirely up to us; if we put up a fight we would get it everywhere. So far as I know there is not a single body of men any place who would submit to such treatment.

We are not worthy to be classed with the miner, the carpenter, the bricklayer, men who are willing even to die for a principle.

No matter if we differ with them we should admire their grit.—Butt.

THE WEST VIRGINIA MEDICAL JOURNAL

JAS. R. BLOSS, M. D. - - - - - Editor

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WHAT WILL WE DO ABOUT IT?

In this issue appears an article sent to me by one of our former Presidents. It is clipped from a newspaper. This is titled "Plight of the Family Doctor Described by a Town Physician."

At a risk of being regarded as tedious and as being a bore let me insist that each member of the State Association read this very carefully and thoughtfully.

A number of times during the past seven years your editor has tried to call attention to the great dangers threatening our profession and because of this the welfare of the people at large. The strength and wealth of this, or any other nation depends on the health of its individual units (citizens).

We as a body sit placidly by and do nothing. This may be because of our standard of professional ethics. I don't know. What I do know is that it is time for us to awake from our indifference and shake off our inertia, get out of the rut, get united, get busy and put

an end to a lot of d—d fool social uplift and irrationally proposed plans and laws.

This article does not exaggerate. These conditions do exist. We must take cognizance of them. Probably there will be criticism that it is published in our journal, since it is not scientific, et cetera.

This is one criicism that has been made to your editor. That he does not write enough scientific editorials and so on. It is true I do not. I give the members of this association credit for being able to read the papers, addresses and scientific articles with understanding and discrimination. An effort is made to publish abstracts of articles from other sources in the various departments of our journal.

The editorials have very largely been those having to do with the welfare of the profession and the strengthening of our association. I am strong for organization. Probably did every every man in our State Association have to read as many publications from all over the country, each one would feel just as fearful for our profession as do I. Why is it that we are so? Why are we not able to organize and work in harmony? Is it individual doubt or jealousy of each other? Or is it plain laziness and a spirit of "Oh, let George do it?"

That this question in one or another of its phases is bothering far more prominent men in American medicine than your humble servant is evidenced by the abstracts of articles by Arthur Dean Bevan, J. A. Witherspoon, W. C. Clarke and Frank Billings.

These abstracts are published in the editorial pages of the journal with the hope that they will be read and cause the members to think more seriously on this line.

THE REVISION OF THE MEDICAL CURRICULUM

Arthur Dean Bevan, Chicago (Journal A. M. A., April 28, 1923), presents the results of a research that he made as to the desirability of revising the medical curriculum. He interviewed the heads of the various departments and asked them what they thought (a) of the present curriculum of their own departments, and (b) of the curriculum as a whole, and obtained from them their views as to changes which they deemed advisable. Bevan says he has gained from this investigation a wholesome respect for the practitioner in general practice who prepares himself so that he can take care of all classes of medical cases. His task is a much more difficult one than the task of mastering a narrow specialty, and he has a much broader conception of disease, a conception which often enables him to be of more service than a specialist. After obtaining the evidence from the medical teachers, Bevan sought the opinions of medical students who were completing their clinical work. There is a general feeling that the medical curriculum should be revised in order to secure better cooperation, better team work; and there is a very general willingness to bring this about. A specific plan is needed. On the basis of this study Bevan submits the following specific plan:

1. There are certain portions of the subjects of anatomy, physiology, pathology and pharmacology which are essential in actual practice, and

which are used every day in clinical work and must be mastered.

2. The sum total of this knowledge now actually required is enormous, and is sufficient to crowd the time that can be allotted to the medical curriculum.

3. The essential portions of the daughter sciences should be taught so as to make clear their application to clinical work. This necessitates a radical change in the curriculum, the introduction of the patient and the clinic at the very beginning of the medical course.

It is the function of the departments of anatomy, physiology, surgery, medicine, etc., to make physicians: not to make anatomists and physiologists, orthopedic surgeons and neurologists. In revising the under-graduate curriculum, we must drop those portions of the sciences that have no clinical application in the hands of the general practitioner. A large part of the formidable subjects of biochemistry and intricate neurology should be eliminated. These subjects should be taught, but in a simpler, clearer way. There should be introduced into the first year a joint laboratory and clinical conference. This conference should be given once or twice a week, and at this conference should be demonstrated clinical cases and pathologic material representing big general problems, such as diabetes, toxic goiter, jaundice, ascites, syphilis, tuberculosis and leukemia, and such subjects as wound repair, wound infections, aseptic technic, burns, fracture, hemorrhage, shock, osteomyelitis, anesthesia, tumors and congenital malformations; and the use the clinician makes of anatomy, physiology, pathology and pharmacology in handling these problems should be demonstrated. At the same time, the laboratory teachers should have access to this clinical material so that they can demonstrate examinations of blood, urine, blood pressure, basal metabolism, etc., and the laboratory side of the same clinical problems. In this way, the student would learn how these sciences are applied in clinical work, and the laboratory men and clinicians would work together on the same problems In the work of the clinical years, provision for continuing the work of the laboratory years should be made. Each clinical department should see that this is done as thoroughly as possible. Each clinical department should have its own clinical laboratory and have full control of its clinical laboratory work. Pathology should be continued into the clinical years as a well organized department in charge of postmortem work and general pathologic laboratories and museum, and the professor of pathology should act as a consultant to the clinical departments in important problems in pathology. Whatever revision of the medical curriculum is made, there must be no conflict of authority and there must be good team work. The laboratory departments must remain supreme in their work, and the clinical departments must remain in absolute control of the hospital and the clinic. There is plenty of field for research for both groups and for all departments. Each department, both laboratory and clinical, must be actively engaged in research. The creation of a special research department in a medical

school is a serious error, which would sterilize the school, and should not be considered.

MEDICAL EDUCATION, PAST AND PRESENT

Today, J. A. Witherspoon, Nashville, Tenn. (Journal A. M. A., April 28, 1923), says two glaring crises confront the medical profession. One is that medical schools are not furnishing physicians who are willing to practice in the places where they are most needed; the other is that the system of education is training men in such a way that they could not practice efficiently in these places if they desired to do so. This is not only a menace to the people; it also threatens the system on which the blame falls. The changes made in medical schools and teaching methods were brought about with splendid purposes in mind; but, in some way, the education of today seems to unfit men for the real practice of medicine at the bedside. That this revised, improved method of teaching medicine is not devoid of defects is apparent to all who have devoted much time to study of the problems involved. One objection is that it overworks the student and gives him an enormous amount of instruction which he cannot learn to use to advantage in so short a time—this in spite of, possibly also because of, greater clinical facilities. Another defect is that each teacher has felt and has tried to impress on his pupils the great importance of his own particular subject. Specialties, therefore, have been emphasized out of all proportion to their merit, and the student has been robbed of time and mental effort that could have been employed more profitably. The only excuse for the existence of medical schools, hospitals or physicians is that there are the sick who wish to become well and the well who wish protection against disease. The physician is the man who is employed and paid to accomplish the cure. The hospital offers him opportunity to perform his work skillfully and promptly. The function of the medical school is to prepare physicians to cure the sick. Men go to medical schools to study, to learn lessons, clinical and didactic, to acquaint themselves as far as possible with the present state of advancement in medical knowledge, and with the methods of applying this knowledge in the practice of the healing art among the people. And the people are crying, whole communities, whole counties, for men to come to them with this skill. It is the purpose—or should be—of the medical school to train general practitioners and to reduce the time devoted to special studies to a minimum so that the student may devote a maximum of time to the subjects embraced by the term "general practice." If any man would specialize, he should be required to spend sufficient time after graduation in acquiring proficiency in the chosen line of work. This cannot be done during his undergraduate years without neglect of the broad foundation in general medicine, without which no man can hope to become a truly great specialist. The objections to the employment of full-time men in medical schools to teach the practical branches are set forth at length

by Witherspoon. He closes with these words:

This new idea of full-time teachers in the practical departments of medical schools did not originate in the profession. It is the child of the brain of a man who never studied medicine, never practiced medicine and who doubtless has no inclination to do so; the child of one who, therefore, cannot realize fully what it means to be a physician; what the difference between a physician and a banker or a teacher is; who does not know the feeling of responsibility that every good physician knows. Now, this fond father brings this strange child and leaves it on the doorstep of the profession with the assurance that it is a fine child, and with the insistence that the profession adopt the child and make it sole heir to the throne of the empire which their fathers and they themselves have builded.

ANALYSIS OF METHODS OF MODERN MEDICAL EDUCATION

The reorganization of medical education is considered by William Cogswell Clarke, New York (Journal A. M. A., April 28, 1923), under five main subjects: (1) teachers; (2) students; (3) the subject matter included in a medical course; (4) methods of teaching and of study, and (5) the chief aims in medical education and the present hindrances to their attainment. Clarke's closing words show that it is his belief that the prime essential is the teacher. He says, "Only the best instructors should be chosen, because on them depends the selection of students and to a large degree their development and education. The surest way to have many good instructors available is continuously to develop them from those possessing the greatest apparent potentialities. Teachers who do not continuously prove of value should not be allowed to remain in a school. The method maintained should aim for the selection and maintenance of good teachers and laboratory workers, for under them any method of education is successful.

THE RESOURCEFUL PRACTITIONER OF MODERN MEDICINE

Frank Billings, Chicago, (Journal A. M. A., Feb. 24, 1923), says that the time has come for plain statements in regard to modern medical practice, with the purpose of bringing the public and the members of the medical profession as a whole back to good common sense views. It is his purpose to attempt to show how the general practitioner may continue to occupy the important place in the field of practice which was his until recently. He says that in their work, not all general practitioners are resourceful and sure of themselves. This fault is due, in some instances, to inadequate early training, but in a majority of men it is due to laziness and failure to take advantage of the opportunities afforded all physicians. The physician who makes all possible use of his daily clinical opportunities learns something new and useful every day of his professional life. Naturally, this daily clinical study develops the powers of observation and manual dexterity in physical examination and in treat-

ment. The knowledge which this ever increasing experience affords is refined and stabilized by purposeful reading of standard textbooks and preiodicals, by association with fellow practitioners and by the discussion of papers read before medical societies, and by writing papers on subjects which the physician's daily clinical observations justify. Membership and active participation in the work of the county medical society is of great educational benefit to the physician. It affords personal contact with fellow practitioners in the courteous discussion of medical subjects and professional problems, promotes mutual respect and good will, and is a potent factor, conducive to increased self-respect and self-reliance on the one hand, and to a decrease in the size of the hat, if imaginary megalocephaly makes one a nuisance to his fellows. Concisely written reports of interesting clinical observations presented before medical societies and for publication are a splendid means of self-education, and are justified because they furnish a valuable addition to medical literature. Diagnosis is the most important factor in the practice of medicine. With due regard for the value and need of all the splendid ultrascientific laboratory and instrumental methods of physical and functional diagnosis in investigatory medical work, they are needed in the routine clinical care of not to exceed 20 per cent of all the patients of any urban or rural community. Unfortunately, many lay people have been made to believe and apparently a large number of physicians think that the routine application of the ultrascientific methods of diagnosis is necessary in the majority of cases. The fact is that the diagnosis can be made in fully 80 per cent of all cases by a resourceful general practitioner who will efficiently use his brain, special senses, hands and an always available simple and inexpensive laboratory and instrumental equipment. The history of the past and present condition of the patient is one of the most important, if not the most essential, factor. A majority of practitioners do not make written records of their patients: these are absolutely essential to accuracy in diagnosis and efficiency in practice. The conscientious practitioner will make a careful, general physical examination of practically all patients who seek his services. An occasional patient with a slight ailment, and especially those with slight injuries or lesions requiring surgical treatment, are exceptions. Daily practice in technic and judgment is the program which every physician must follow to become a skilled diagnostician. The practitioner can gain much by observing others at work in organized clinics or by taking postgraduate courses in diagnosis, when these are available; but the efficiency of the practitioner in diagnosis is mainly dependent on his own industry and determination to make the most of his own clinical opportunities. There is a growing custom in urban practice for general practitioners to have the routine laboratory examinations, such as urinalysis, blood estimations and other simple tests, made and the results interpreted for them at the numerous available commercial laboratories. In Billings' opinion this is a great fault in practice; it would be quite as rational for the practitioner to depend on available organ-

ized clinics for the physical examinations and diagnosis of patients. For the few patients who require laboratory or instrumental tests which involve special knowledge and technical skill in their application, such as blood chemistry, serology, bacterial cultures, elaborate blood counts, electro-cardiography and efficient roentgenology, the practitioner should make use of the excellent commercial laboratories, public clinics and available state, county and municipal health laboratories. Billings believes that the preservation of the general practitioner, as the most important factor in the field of practice, is dependent chiefly on himself. He must keep abreast of the advance of modern medical knowledge and practice, chiefly by his own efforts. If he strives to improve and help himself he will be successful; will justify his importance in the medical field, and will attract the ill and injured to his door because of his professional individual superiority as compared with men in narrower fields of practice, alone or in public or private groups. The necessity for the preservation of the general practitioner in the city and in rural districts, for the general public good, justifies and demands that the organized medical profession should assume leadership in educating the public to understand and comprehend the need of hospital centers, including diagnostic facilities in every community financially capable of self-support.

KEEPING WELL IN SUMMER

"What one should do to keep well in the summer," says Surgeon General H. S. Cumming, of the U. S. Public Health Service, "depends on what one has been doing during the winter." As winter occupations are infinitely varied it may seem at first blush that this dictum calls for equally varied summer programs. However, most occupations fall into certain groups which call for corresponding vacations.

"For instance, most men and an increasing number of women work hard all winter and take a vacation when summer comes. On the other hand, large groups of men and women (farmers, for instance) work hard all summer and take a vacation, if they ever get one, in the winter, when farm work is slack. Most women work hard in their own homes, and they too have earned a vacation, though their right to it is not always acknowledged. Some men and women appear not to work at all and would probably be very angry if any one accused them of working. These also need a vacation, but very few of them get a real one.

"A vacation should mean very different things to these different classes. A clerk, for instance, should do something that would make him use his muscles (though not to excess) and an iron mill worker something that would enable him to rest his. A girl who has been typewriting or packing cigarettes or cooking in somebody else's home should use her vacation in outdoor sports such as playing tennis or something like that. A tired wife and mother should rest by getting away from husband and children, soothing her nerves by chatting with other women, and having a few moments of genuine privacy. A "society" girl who really works about as hard as anybody in the

service of the Goddess of Pleasure and is probably (temporarily, at least) sick of teas and men and other girls, would do well to attend a Summer Normal school, where she would at least get a brand-new outlook on life — unless she has courage enough to get a job in a factory, where, if she was not too haughty some "factory girl" might take pity on her and teach her the ropes.

"The usual prescription for a vacation is exercise in the open air. Such advice assumes that exercise in the open is the one important thing that most workers do not get. This is, of course, true in regard to many persons, but it is not true in regard to many others—farmers, street cleaners, and chauffeurs, for instance. Anybody who has been spending his or her winter evenings in stuffy rooms studying, playing cards, dancing, or just nodding, should by all means, get out into the open air in the summer. A truck driver, on the other hand, might well spend his vacation indoors.

"Exercise, particularly, in the open air, is valuable, and, indeed, essential to continued good health. Exercise, however, looks chiefly to physical and ignores mental health; and mental health is now considered to be about as important as physical health.

"Millions of persons, women in particular perhaps, need a 'change' rather than a 'rest.'

"As a matter of fact, nearly everyone feels this and unconsciously strives to act upon it. The 'tired business man' of whom papers say so much is not so foolish as some persons think when he goes to the theater to listen to a farrago of nonsense; for this is the very antithesis of his daily work. Unfortunately going to the theater is like his business, indoors.

"Clerks or working men or girls who attend baseball games show better judgment, for they get mental stimulus; and, if they applaud the players or denounce the umpire with enough enthusiasm they get a good deal of physical exercise in the open air. On the other hand the farmer who works 15 hours a day from early spring to late fall might do worse than spend two winter weeks in the city, fighting off the wily 'confidence' men and attending the movies. And more or less similarly for his wife. They would both get enough mental stimulus to sustain them through the laborious days of next summer.

"The point is to get new ideas for the brain to mull over. All persons, after being tied to one set of ideas (or to no ideas at all) for months, will find themselves a lot healthier and happier if they can pick up a totally different set during their vacation. Whether the ideas are wise or foolish, they can get a lot out of them, particularly if they find friends who are considerate enough to find a contradictory set and to stand up for them. The two will prevent each other from vegetating and keep each other happy (even if furious) till the next vacation. Vegetating is the worst thing in the world for a human being—at any rate for the American species.

"It would be well if all persons would adapt this advice to their own circumstances and would plan vacations for the coming summer that differ radically from their daily occupations. Such vacations prob-

ably would not turn out quite as was expected; but that would be half their charm. Some persons might even wish they hadn't tried the plan for a week or so after they got home; but the chances are that the next summer they would try the same or some other 'contrary' plan once more."

MEDICINE AND SURGERY

ALCOHOL AND DISEASE

Since the debate regarding the prohibition of the manufacture and sale of alcoholic beverages has hinged largely on the scientific aspects of the liquor problem, every pronouncement on the subject is awaited with interest. Recently a statistical report regarding the possible influence of alcohol on the prognosis of pneumonia in a large municipal hospital was published in The Journal.[1] The data for nearly 3,500 cases of lobar pneumonia showed, with reference to the patients' habits of indulgence in alcoholic drinks, that the mortality was higher in moderate users than in light users or abstainers, and that the mortality in excessive users was much higher than in moderate users. It seems important to define the limits of interpretations to be made from these data. The investigators themselves insisted that their findings demonstrate only what a harmful effect the use of alcohol may have on the course of a disease. They have no bearing on the question whether legislation has or has not diminished the prevalence of drinking. In commenting on the paper referred to, a prominent newspaper pointed out further that the statistics have no bearing on the possible use of alcohol in therapy. It cannot be too strongly emphasized or too frequently reiterated that alcohol, like many drugs, may have a usefulness in medicine which by no means justifies the assumption that it is of equal value in dietetics. Strychnin is recognized as a helpful drug and also as a deadly poison. Hydrochloric acid can act as a violent corrosive; it may also facilitate gastric digestion. The contradictions are in the statements of persons, and not in the facts of science.—Jour. A. M. A., April 7, 1923.

1. Capps, J. A. and Coleman, G. H.: Influence of Alcohol on Prognosis of Pneumonia in Cook County Hospital, J. A. M. A. 80:750 (March 17) 1923.

CONSTIPATION TREATED BY THE EXCITATION OF THE ANAL REFLEX

The use of the defecation reflex through the spinal cord is a novel aid in the treating of constipation advocated by Professor W. A. Newman Dorland, of Chicago, in the March, 1923, issue of the International Clinics. This reflex can be artificially excited in a very large proportion of patients, within fifteen to twenty seconds, by resorting to the following procedure: A folded sheet of toilet-paper is laid over the anus; the patient relaxes the sphincters completely and bears down, while with the index finger of the right hand she gently makes a series of rapidly broken compressions, about ten or twelve or less, directly over the anus. On ceasing this motion there will immediately follow a desire to defecate, which should be aided by a gentle bearing down. It has been estimated that

the period of time elapsing between the anal stimulus and the initial reflex response is about 0.02 second. It must be borne in mind that holding taut the rectal sphincters will completely abolish the defecation reflex, since this involves a strong contraction of all the muscles of the pelvic floor, which action results in immediate inhibition of the defecation reflex. Dr. Dorland believes that if this simple procedure is carefully carried out at a regular daily hour, preferably in the early morning, the average case of constipation will be relieved and a regularity of body-habit established that will work wonderfully for the physical benefit of the patient. Laxatives, purgatives and cathartics undoubtedly have their place in the treatment of constipation, but their use should be restricted as largely as possible, and should not usurp the preferable methods of regulation of the bowels by the adoption of carefully selected diets, the observance of proper hygiene, the performance of daily exercise of various appropriate kinds, and the cultivation of the normal body reflexes.

REFLEX ANURIA

Joseph F. McCarthy, John A. Killian and Arthur F. Chace, New York (Journal A. M. A., April 14, 1923) report the case of a man, aged 35, who entered the hospital with most of the clinical symptoms of a ureteral calculus. He had been indoors for a number of years, and his resistance was low. At the time of admission to the hospital, blood chemistry findings were within normal limits, except for relative high uric acid. Cystoscopy was performed twice. A relatively low function was shown for the left side, 3 per cent for fifteen minutes, it being presumably the affected side; and roentgenographically a shadow of bean shape was revealed, resembling a tumefaction encroaching on the lower third of the left kidney. This was ruled out with a pyelogram. The patient for several days was quite restless, and there was some vomiting. On the fifth day thereafter, he developed anuria of a very pronounced character, which became practically complete, two days later. An attempt to introduce a ureteral catheter in the affected side revealed an obstruction at 6 to 8 cm. The inferential diagnosis at first was toxic nephritis, as the result of pyelography. An alternative diagnosis was: displacement of a ureteral calculus (which failed to throw a shadow, roentgenographically) followed by an obstruction on this side, and a reflex anuria on the other. All the customary remedial measures, such as medication by mouth, rectal drips, colonic irrigations, hypodermoclyses and bloodletting, with intravenous infusion of glucose solution and sodium bicarbonate, having been exhausted, the patient continued in a condition of uremia. There were pronounced muscular twitching, semi-coma, projectile vomiting, expulsion of the rectal drip, etc. His failure to respond to these therapeutic measures led to employ the only remaining procedure offering relief: the use of the duodenal tube, which was attended with spectacular results. First, there was cessation of vomiting, which was reduced to a negligible amount; second, an immediate and

tremendous increase in urine output was secured, with but slight change in the blood chemistry findings. Four or five days later, lavage of the entire intestinal tract with from a half to a gallon (2 to 4 liters) of tap water, three times every twenty-four hours, caused an increase in the number of stools of from ten to fifteen a day. There was a pronounced reduction in the blood retention, which dropped in six days from 104 mg. of urea nitrogen and 21.2 mg. of creatinin to 56.6 mg. of urea nitrogen and 9.2 mg. of creatinin. Five days later, there was a reduction to 48 mg. of urea nitrogen and to 4.4 mg. of creatinin, until finally there was 9.7 mg. of urea nitrogen and 2.2 mg. of creatinin. Another feature of note was the pronounced albuminuria coincident with the culmination of the symptoms following pyelography. The passage of the calculus cleared up the diagnosis: in all probability, the patient has a ureteral calculus, which was dislodged at the time of the last ureteral catheterization, producing an obstructive anuria on this side, with a reflex anuria of the opposite side.

THE OLD HEAD INJURY CASE

One hundred old head injury cases were studied by Joseph C. Michael, Minneapolis (Journal A. M. A., April 14, 1923), with special reference to the degree of the vocational handicap, the neurologic complications and the probable factors in their production. His conclusions are: The prognosis for life of the patients overcoming the immediate complications is very favorable, excepting those who incurred penetrating brain injury. Freedom from invalidity is uncommon. Careful, early treatment will do much to prevent chronic invalidity. Increased intracranial pressure and signs of local irritation are the only indications for surgery on the head in the acute as well as in the chronic case. Handling of the patients with intractable head injury syndrome constitutes a problem of great magnitude.

SUDDEN ACUTE PAIN IN THE SHOULDERS ASSOCIATED WITH ACUTE PELVIC PAIN IN WOMEN

I. C. Rubin, New York (Journal A. M. A., April 14, 1923), reports two cases in which sudden acute pain in the shoulders was associated with acute pelvic pain in women, and describes this pain as a symptom of ruptured ectopic pregnancy, indicating subphrenic blood extravasation (subphrenic hemoperitoneum). The mechanism by which these shoulder pains in subphrenic pneumoperitoneum are produced is said to depend on the relations between the diaphragm and the suspensory ligament of the liver. When gas displaces the diaphragm upward, the liver is simultaneously displaced downward. The falciform hepactic ligament is consequently stretched, and thus the phrenic nerve is stimulated. As the phrenic nerve has its origin in the third, fourth and fifth cervical cord segments, and as it actually connects with cervical peripheral nerves supplying the shoulder girdle, pain produced in the diaphragmatic area is referred to the shoulders by sensitized cutaneous nerves of the cervical segments. The first case cited by Rubin was one of bi-

lateral shoulder pains were caused by a ruptured tubal pregnancy on the left, with a large amount of extravasated blood. In the second case severe pain in the right shoulder was caused by a tubal abortion on the right and moderate blood extravasation.

A SIMPLE METHOD FOR DEMONSTRATING MOTOR PARALYSIS OF LOWER EXTREMITIES

For the purpose of recording the downward pressure made by the passive extremity, a sign first described by Hoover, Tom Bentley Throckmorton, Des Moines, Iowa, (Journal A. M. A., April 14, 1923), used the sphygmomanometer apparatus with very gratifying results. The patient is required to lie flat on his back with the lower extremities extended. The arm band of the sphygmomanometer apparatus is placed under one heel, and, after the recording dial has been attached, air is introduced. The air pressure in the arm band is increased until the upper and lower surfaces of the cuff are separated to such an extent that downward pressure with the heel will not bring the two surfaces into apposition, thus assuring that the heel will always be resting on an air cushion. The amount of air necessary to bring this about was usually found to be sufficient for adults when the recording hand of the instrument reached 30 mm. With the heel resting on the air cushion, the leg entirely free from contact with the bed, and the starting point on the dial observed, the patient is instructed to raise the opposite leg, while keeping the extremity extended, to an angle of about 45 degrees with the body. The maximum excursion of the recording hand, particularly the point at which the downward pressure of the heel sustains the hand, is then noted. After the reading has been taken on one side, the air cushion is placed beneath the opposite heel. In normal persons, i. e., when no paralysis of the extremities exists, the readings on the two sides are, for all practical purposes, one and the same. In case of motor paresis of a lower extremity, in which the paralysis was only partial, and of some duration, it was found that when the non-paralytic leg was elevated, the maximum reading was sustained, whereas elevation of the organically palsied extremity produced a maximum reading not only lower than the one obtained when the normal leg was elevated, but a reading that was not well sustained, tending to decrease as the muscles of the paralytic extremity failed to maintain the elevation. When the paralysis was recent and progressive, attempts to elevate the palsied extremity produced a far greater contralateral pressure on the non-affected side than occurred when the normal extremity was elevated.

RECURRING ILEOCECAL INTUSSUSCEPTION

Moses Thorner, Santa Maria, Calif. (Jour. A. M. A., April 14, 1923), records the case of a girl, aged 11 years, who was referred with the diagnosis of intussusception. An operation was performed. A large, sausage-shaped mass was delivered into the wound, which proved to be an ileocecal intussus-

ception, including the proximal end of the appendix. The invagination consisted of about 10 inches of the ileum, a part of the cecum and the proximal end of the appendix. The appendix was removed, and the caput coli and terminal ileum were each sutured by a single mattress suture to the peritoneal reflection from the pelvis. The progress of the case was uneventful. The symptoms recurred, three weeks later. The attack was acute, with symptoms exactly as in the initial onset, but all the symptoms were immediately relieved by high enemas given in the knee-chest posture. Within two weeks there was a recurrence of the attack, unrelieved by enemas. A large mass was felt in the right umbilical region. A second operation was performed. There were considerable omental and intestinal adhesions. When the omentum was separated from the intestines, these were found to be thickly covered with miliary tubercles; the mesenteric glands were much enlarged. About 1 foot of ileum was invaginated into the cecum. The intussusception was easily reduced. On account of the presence of the large number of tubercles, no further radical means for prevention of recurrence was undertaken. The further course was uneventful. The patient remained well, with steady gain in weight for three months. The next attack began in the evening with slight abdominal pain in the umbilical region. In the morning the pain became acute, of the usual cyclic type, accompanied by vomiting, and bloody mucus from the bowels. There were no adhesions to the abdominal wall. The intestines, however, in this region were very adherent. After reduction, as before, the ileocecal orifice was found to be very patulous, and was considerably narrowed by three puckering mattress sutures of chromic gut, encircling the lumen of the intestine at this juncture. The patient was kept in bed a longer time on this occasion, but after two weeks she was allowed to be up and about. The general and local condition was excellent. Six months later there was recurrence of a typical attack, unrelieved. A large mass consisting of cecum with invaginated ileum was delivered into the wound. Reduction was performed by the previous technic. No tubercles were found. The ileocecal orifice was as patulous as before, easily admitting three fingers. The lumen of the patulous ileocecal valve was narrowed with three Halsted inversion stitches of Pagenstecher linen. The lower end of the cecum was again anchored to the pelvic peritoneal band to prevent excessive motility. The mesentery of the ileum near the cecum was reefed, also with Pagenstecher linen, imitating a Lane's kink. The subsequent course was uneventful. There was another recurrence, within sixty days. The patient did not suffer so acutely, but she was more nervous, and had a pain in the right side of the abdomen. Palpation disclosed a much smaller mass than in the former attacks; she was relieved by enemas. Three days later a markedly acute attack occurred and a large mass could be felt in the right umbilical region. Operation was performed. There were adhesions all about, but particularly between the omentum and the intestinal coils. These were released, and the intussusception was reduced as usual. The ileocecal

orifice was as patulous as before, and no evidence of the Pagenstecher stitches was found. No further attempt was made to narrow the ileocecal lumen. A lateral anastomosis of the ileum and the cecum was done. After the lapse of almost a year, the patient was robust, and had been entirely free from any abdominal distress since the last operation. She was active in athletics. There was no hernia or lack of muscular tone or strength. No mass could be felt in the right iliac region. Stereoscopic roentgenograms revealed the barium entering the terminal ileum, and both the cecum and the ileaum lay in the right iliac fossa, where they were anchored at the last operation.

AN UNEXPECTED EPINEPHRIN REACTION FOLLOWING INFILTRATION WITH PROCAIN-EPINEPHRIN SOLUTION AS A LOCAL ANESTHETIC

In a case of probable tumor of the cerebellum, Charles E. Dowman, Atlanta, Ga. (Journal A. M. A., April 14, 1923), infiltrated the field of operation with 5 ounces of 1 per cent procain solution, each ounce of the solution containing 7 minims of epinephrin chlorid solution (1:1,000). Before the infiltration was begun the systolic blood pressure was 102 mm. of mercury; the pulse, 80. At the completion of the infiltration, the systolic blood pressure rose suddenly to 180 and the pulse to 180 a minute. There was sudden loss of consciousness followed by a generalized convulsion. The extremities became blanched. The thyroid gland appeared increased in size. A few minutes later there was projectile vomiting. Fifteen minutes after the reaction began, the blood pressure began to fail, and came down within a few minutes to 115. As the blood pressure began to fall, consciousness returned. It was then noticed that the left pupil was dilated and that there was a paresis of the left side of the face. After two hours, these findings disappeared. During the twelve hours following the reaction, the paitent vomited several times. At the end of this time the patient had returned to the same condtiion that preceded the infiltration. Two days later a cerebellar operation was successfully performed under ether anesthesia.

NEW AND NON-OFFICIAL REMEDIES

Carbon Tetrachloride Medicinal. —Carbon Tetrachloride has narcotic and anesthetic properties somewhat similar to those of chloroform. It has recently come into use as a vermifuge in the treatment of hookworm disease. It also removes some intestinal parasites other than the hookworm. It is reported that usually about 95 per cent of the hook worms are removed by the first dose. Its use appears to be relatively safe, but serious symptoms and even death have been reported. It is administered in water, milk or gelatin capsules on an empty stomach, followed by a purgative dose of magnesium sulphate. The dose is from 2 cc. to 3 cc. (30 to 45 minims) for adults. Carbon tetrachloride is a heavy liquid, having an odor somewhat like that of chloroform. It is almost tasteless and almost insoluble in water.

Carbon Tetrachloride Medicinal, M. C. W.—A brand of Carbon Tetrachloride Medicinal, N. N. R. Mallinckrodt Chemical Works, St. Louis.

Carbon Tetrachloride C. P., P. W. R.—A brand of Carbon Tetrachloride Medicinal, N. N. R. Powers-Weightman-Rosengarten Co., Philadelphia. (Jour. A. M. A., April 21, 1923, p. 1143.)

Modified Pneumococcus Vaccine—A vaccine or "antigen" prepared by digesting a suspension of pneumococci, types I, II, III and Group 4 at 37 C. until about 95 per cent of the organisms have become gram-negative and the mixture is relatively nontoxic to guinea pigs. It is believed that this method yields a vaccine with greater protective power. There is some evidence that this vaccine is of value in the treatment of lobar pneumonia. It is not intended for prophylactic use.

Pneumococcus Antigen-Lilly—A modified pneumococcus vaccine, N. N. R. It is marketed in 5 cc. vials, each cc. containing twenty billion partially autolyzed pneumococci. Eli Lilly & Co., Indianapolis, Ind. (Jour. A. M. A., April 21, 1923, p. 1143.)

Neo-Silvol—A compound of silver iodid with a soluble gelatin base containing 18 to 22 per cent of silver iodid in colloidal form. Neosilvol, even in concentrated solutions, causes neither irritation of mucous membrane nor coagulation of albumin. It does not stain the skin. It is claimed that neo-silvol in laboratory tests for germicidal value has been found as effective as phenol in its action on bacteria. Neo-silvol is intended for the prophylaxis against, and treatment of infections of accessible mucous membranes and is claimed to be indicated in affections of the genito-urinary tract and of the eye, ear, nose and throat. Parke, Davis & Co., Detroit, Mich. (Jour. A. M. A. April 28, 1923, p. 1218.)

Phenoltetrachlorphathalein, H. W. D.—A dibasic dye formed by the condensation of phenol and tetrachlorphathalic acid or its anhydride. Phenoltetrachlorphathalein has been used for the determination of the functional output of the liver. It can be used, in the form of sodium salt, intravneously; but cannot be given subcutaneously or intramuscularly. The substance may also be obtained in the form of Ampules Phenoltetrachlorphathalein containing a solution of disodium phenoltetrachlorphathalein. Hynson, Wescott & Dunning, Baltimore, Md. (Jour. A. M. A., April 28, 1923, p. 1218.)

PROPAGANDA FOR REFORM

Ethylene as an anesthetic—The Council on Pharmacy and Chemistry has published a preliminary report on the experimental status of ethylene as an anesthetic. A. B. Luckhardt and J. B. Carter report that animal experiments with ethylene indicate that ethylene has a direct action on the nervous system when a concentration of 90 per cent is used; that the motor reflexes are abolished at this concentration, and that the phenomena produced by the undiluted gas are partly asphyxia, which factor can be removed by the addition of oxygen, when it is seen that narcosis results from the ethylene itself. Trials carried out on human subjects appear to

confirm the anesthetic value of ethylene. The investigators believe that ethylene will be found more desirable than nitrous oxid, but the experiments reported have been carried out on persons in normal health only. The Council reports that confirmation of the work is necessary before ethylene can be admitted to New and Nonofficial Remedies, but that further research with the gas is warranted. As a preliminary to such research, the Council cautions that the quality of the product must be determined.—(Jour. A. M. A., April 7, 1923, p. 1003.)

Zonite—Zonite is advertised as a new and wonderful discovery based on the "Carrel-Dakin" solution. The propaganda is, in effect, a capitalization of the work of Carrel-Dakin and others. Chemically Zonite, after dilution with an equal quantity of water, is claimed to be essentially the same as Surgical Solution of Chlorinated Soda (Carrel-Dakin) of New and Nonofficial Remedies. Zonite has been exploited to both physicians and the public.—(Jour. A. M. A., April 7, 1923, p. 1024.)

Owl Enamel Toilet Cream—This preparation, manufactured by the Owl Drug Co., (Kansas City, Mo.) is sold for the alleged purpose of "Beautifying the Complexion and Rendering the Skin Soft and Velvety." Dr. Henry W. Woltman of Rochester, Minn., has reported a case of lead poisoning in a woman who had been using Owl Enamel Cream. The A. M. A. Chemical Laboratory analyzed the product and found it to be composed essentially of lead carbonate, calcium carbonate and glycerin. The indiscriminate sale of a preparation of this sort is not merely a menace to the public but a commentary on the laxity of our laws. It is notorious that certain salts of lead have for years been responsible for cases of chronic lead poisoning, due to their employment in cosmetics. In spite of this any concern, responsible or irresponsible, can sell for indiscriminate use a cosmetic loaded down with poisonous ingredients.—(Jour. A. M. A., April 7, 1923, p. 1022.)

Incompatibility of mercurochrome, 220 soluble with local anesthetics and alkaloids—An accident from the precipitation of mercurochrome, 220 soluble by procain has been reported. The A. M. A. Chemical Laboratory has confirmed the incompatibility. The following local anesthetics were found to give precipitates when treated with mercurochrome, 220 soluble solution: alypin, apothesin, benzocain, butyn, cocain hydrochlorid, Breucain lactate, phenacain, procain, propaesin, quinin and urea hydrochlorid, tropacocain hydrochlorid and stovain. Many vegetable alkaloids were also found to be incompatible with mercurochrome, 220 soluble.—(Jour. A. M. A., April 14, 1923, p. 1091.)

A rapidly eliminated digitalis body—At the request of the Council on Pharmacy and Chemistry, Dr. R. A. Hatcher undertook to elaborate a digitalis preparation that would be stable, that would contain a definite amount of the readily absorbable principle and that would be suitable, if possible, for intravenous administration. As a result of his work he has isolated a digitalis body which behaves unlike any constituent of digitalis heretofore

described. A nearly fatal dose is eliminated within a few hours after its introduction into a cat. It remains to demonstrate the therapeutic value of this new digitalis preparation through the cooperation of the clinician and the pharmacologist. The intravenous administration of digitalis is rarely necessary if digitalis is properly given by mouth. For rare cases in which intravenous medication administration is indicated, it appears that Dr. Hatcher has prepared a drug whose action is less persistent than other digitalis preparations now available and which is simply and inexpensively prepared.—(Jour. A. M. A., April 14, 1923, p. 1072.)

Glyco-Pepto Milk not admitted to N. N. R.—The Council on Pharmacy and Chemistry reports that Glyco-Pepto Milk is a sour milk said to contain Bacillus bulgaricus, Streptococcus lacticus and Glycobacter peptolyticus. The preparation is marketed by the Glyco-Pepto Manufacturing Co., Long Island City, N. Y., with the claim that its administration supplemented with a potato diet through the presence of Glycobacter peptolyticus permits the implantation of the Bulgarian bacillus in the lower intestine and thus brings about an almost complete disappearance of phenols and indoxyl from the urine. The Council reports that Glyco-Pepto Milk may be a pleasing beverage and light food, but that there is no acceptable evidence for the many therapeutic claims that are made for it. The Council declared the preparation inadmissible to New and Nonofficial Remedies.—(Jour. A. M. A., April 21, 1923, p. 1165.)

Nephritin (Reed and Carnrick) was reported on by the Council on Pharmacy and Chemistry in 1907. The following is a summary of this report: The advertising claims for Nephritin are based on the theory that certain granules in the renal cells, called "grains of segregation" and claimed to have been observed microscopically, carry on the secretion of urinary constituents and that a deficiency of them is the cause of nephritis. While Renaut, who formulated the theory, recommended as a cure for nephritis the maceration of fresh kidneys in physiologic sodium chlorid solution, Reed and Carnrick urged objection to the maceration and explained that nephritis represents all the action of the maceration, but is fifty times as potent. Nephritin is stated to be "the grains of segregation from the cortex of the pig's kidney, the renal connective tissue being eliminated." It appeared impossible that the microscopic structures claimed to be present in nephritin could be isolated as such from the connective tissues, and, on inquiry by the Council, no information on this point was to be had. Further, the firm presented no evidence for the claimed action of nephritin or for the claim that it was fifty times stronger than the maceration.—(Jour. A. M. A., April 21, 1923, p. 1167.)

The treatment of syphilis.—The general view is that neither mercury or arsphenamin positively cures in cases in which the disease has existed long enough to become well established as a systemic disease, but that they both tend to cure and that both are valuable in treatment. It is the general opinion of syphilologists that when chancres are seen that are unmistakable,

these cases should be vigorously treated and that there is a good chance of aborting the disease at this time. If early cases are not treated until the wassermann reaction has become positive, there is a difference of opinion as to treatment. There are syphilologists who believe that these early cases are better treated by mercury alone until the patient has had an opportunity to develop all the immunity of which he is capable. After the patient has established all the resistance of which he is capable, these syphilologists would treat with mercury and arsphenamin. It is becoming increasingly apparent that the advantages of the new method of treating syphilis in which arsphenamin plays the larger part, are by no means certain. The trend of the last few years has been in the direction of placing more reliance on mercury and the older methods in the treatment of syphilis.—(Jour. A. M. A., April 21, 1923, p. 1167.)

Herradora Specialties not accepted for N. N. R.—Early in 1922 the Scientific Chemical Co., New York City (Marcus Aurelio Herradora, M. D., President) requested the Council on Pharmacy and Chemistry to consider his intravenous preparations. The firm sent specimens of the following products "for Intravenous Use": Herradora's Arsenic Compound, Nos. 1 to 6, Herradora's Arsenic and Hypophisphites, Herradora's Arsenic and Iron Compound, Herradora's Calcium Compound, Herradora's Calcium - Sodium - Glycerophosphate, Herradora's Chlorids Compound, Herradora's Chlorids with Iron Compound, Herradora's Creosote Compound, Nos. 1 and 2, Herradora's Digitalin Compound, Herradora's Glycerophosphate-Iron and Nickel Compound, Herradora's Guaiacol Compound, Herradora's Iodids Compound, Herradora's Hexamethylenamine and Guaiocal Compound, Herradora's Iron, Manganese and Nickel Compound, Herradora's Mercury Compound, Herradora's Quinine Compound, Nos. 1 and 2, Herradora's Sodium Iodide, Herradora's Sodium Iiodid-Salicylate-Guaiacol Compound. After examining the submitted evidence the Council concluded that the Herradora Specialties were inadmissible to New and Nonofficial Remedits for the following resaons: (1) The therapeutic claims advanced for them are unwarranted and exaggerated, and there is no evidence to warrant the intravenous administration of them; (2) With one exception ("Herradora's Sodium Iodid") the preparations are mixtures of drugs, the administration of which is not in the interest of sound therapy, particularly when these preparations are intended for intravenous use; (3) Herradora's Sodium Iodid is marketed with unwarranted therapeutic claims; (4) With the exception of Herradora's Sodium Iodid, Calcium Compound, and Iodids Compound, all of the Herradora Specialties are claimed to contain ingredients, the identity and uniformity of which are not insured by their inclusion in the U. S. Pharmacopoeia, National Formulary, or New and Nonofficial Remedies. The Council submitted its objections to these Herradora Specialties to the Scientific Chemical Co. to permit the firm to meet these objections so far as possible. However, advertising mailed in February, 1923, convinced the Council that the propaganda contained in the firm's ad-

vertising is detrimental to the rational practice of medicine and the public welfare. Therefore, it authorized publication of its report.—(Jour. A. M. A. April 28, 1923, p. 1259.)

The Disappointments of Hexamethylenamin. — Hexamethylenamin has joined the large and growing group of drugs of which much has been expected but which have failed to justify the hopes of their champions. The use to which hexamethylenamin is still devoted with apparent scientific justification is in preventing the growth of microorganisms in the urinary tract and in destroying them when they are present in the urine in the infectious diseases, such as typhoid fever. The drug is recommended as an antiseptic in cystitis and as a prophylactic prior to operations on the urinary tract. Its possible efficacy, however, depends on the elimination through the kidneys with a urine that remains distinctly acid in reaction; otherwise, no benefit is to be expected. Hexamethylenamin has no material antiseptic value as an antiseptic in the cerebrospinal fluid during spinal meningitis. It is not a uric acid solvent. Finally, the drug has been shown to have no diuretic potency. Furthermore, hexamethylenamin is said to be liable to produce renal irritation when the dosage is large or the use protracted.—(Jour. A. M. A., Jan. 6, 1923, p. 37.)

Horovitz Protein Substance No. 10.—The composition of Number 10 Protein Substance for syphilis of the Horovitz Biochemic Laboratories is essentially secret. The claims made are unwarranted and may lead physicians to use the product unwisely. A. S. Horovitz, president of the Horovitz Biochemic Laboratories, was referred to in connection with the asserted cancer cure "Autolysin" (The Horovitz-Beebe Treatment for Cancer, Jour. A. M. A., July 24, 1915, p. 336). Later he was connected with the Wm. S. Merrell Co. and appears to have been responsible for this firm's line of "Proteogens" which the Council on Pharmacy and Chemistry declared inadmissible to New and Nonofficial Remedies in 1919. The claims advanced for the products marketed by the Horovitz Biochemic Laboratories bear a striking resemblance to those advanced for the Merrell Proteogens. As in the case of the Proteogens, the Horovitz Laboratories have a list of "Protein Substances" each of which is claimed to be more or less specific against a given disease or condition.—(Jour. A. M. A., Jan. 6, 1923, p. 54.)

More Misbranded Nostrums.—The following products have been the subject of prosecution by the federal authorities charged with the enforcement of the Food and Drugs Act: C. J. C. Regulator (C. J. Czarnecki), containing iron chlorid, a small amount of plant material, a trace of oil of tansy and alcohol. C. J. C. Liniment (C. J. Czarnecki), containing camphor, menthol, chloral hydrates, ether, ammonia water and alcohol. Allan's Red Wash and Sandalwood Emulsion Compound (Allan-Pfeiffer Chemical Co.), containing zinc sulphate, boric acid, a phenol, eucalyptol, a trace of alkaloid and water and Sandalwood Emulsion Compound (Allen-Pfeiffer Chemical Co.), containing santal oil, mineral

oil, methyl salicylate, copaiba, a small amount of magnesium and calcium salts and water. Parrott Mixture (Allan-Pfeiffer Chemical Co.), consisting of an emulsion of turpentine oil, methyl salicylate, camphor, copaiba, gum and water. Parrott Sexual Pills (Allan-Pfeiffer Chemical Co.), containing strychnin and a compound of iron and phosphorus. Am-O-Lox Ointment (Am-O-Lox Co.), consisting essentially of zinc oxid, sulphur, phenol, methyl salicylate and a small amount of dye in a base composed of petroleum and paraffin. Am-O-Lox Prescription (Am-O-Lox Co.), consisting essentially of glycerin, carbolic acid, salicylic acid, methyl salicylate, alcohol, water and coloring matter. Vigeron (Sydney Ross Co.), sugar-coated pills containing compounds of iron, zinc, manganese, arsenic, phosphorus and strychnin.—(Jour. A. M. A., Jan. 6, 1923, p. 53.)

Present Status of Insulin.—The investigators of "Insulin"—the new pancreatic extract proposed for the treatment of diabetes—have applied for a patent on the product in Canada, United States and Great Britain. The patent for Canada and the United States has been tendered, when granted, to the University of Toronto. The University proposes to safeguard the product against commercial exploitation and to ensure the marketing of a standardized product. From the present indications it is hoped that the experimental period will be ended during the first half of 1923 so that the product will become available. Dr. McLeod believes that "Insulin" will never entirely replace careful dietary regulations, but that it is of undoubted value in assisting the weakened power to metabolize carbohydrates. It is to be hoped that the University of Toronto will be able to control the advertising claims and methods of marketing of the product.—(Jour. A. M. A., Jan. 6, 1923, p. 36.)

Antiberiberi Vitamin Concentrate—Metz.—The Council on Pharmacy and Chemistry reports that the Metz Laboratories have requested the acceptance for New and Nonofficial Remedies of Antiberiberi Concentrate—Metz. The firm supplied adequate information in regard to the process whereby the product is obtained, and has presented evidence to show that the potency of the product is controlled by adequate animal tests. The firm, however, presented no proof to indicate that the product is of value therapeutically in human beings, and hence it could not be admitted to New and Nonofficial Remedies. The firm wished to make available to students and investigators of nutrition a product which is claimed to be antineuritic (antiberiberi) when fed to pigeons. It increases the food intake of rats fed on substance deficient in vitamin B and causes increased weight, but not to the same extent as does the vitamin B (according to McCollum's nomenclature). The Council decided that from a scientific standpoint Antiberiberi Vitamin Concentrate-Metz is suitable for animal experiments and for controlled experiments on man, and hence authorized publication of a preliminary report. Antiberiberi Vitamin Concentrate-Metz is prepared from brewers' yeast. The vitamin extract is standardized so

that 0.065 gm. shall represent the antineuritic potency of 10 gm. of freshly pressed brewers' yeast. The product is marketed in the form of powder tablets, and solution (1 cc containing the antineuritic potency of 10 gm. freshly pressed brewers' yeast).—(Jour. A. M. A., Dec. 13, 1922, p. 106.)

Culture-Lac Omitted from N. N. R. and Optolactin Not Accepted.—Culture-Lac is described in New and Non-official Remedies, 1922, as a culture of Bacillus bulgaricus manufactured by the Geck Laboratories, New York. The Special Pharmacal Co., Inc., Buffalo, N. Y., advised the Council on Pharmacy and Chemistry that it now owned Culture-Lac. The product now marketed, however, is not the preparation described in New and Nonofficial Remedies as Culture-Lac, but is said to be a culture containing Bacillus acidophilus and Bacillus bulgaricus. The Council directed that the Culture-Lac of **the Geck Laboratories** be omitted from New and Nonofficial Remedies because it is off the market. The Council declared the Culture-Lac of the Special Pharmacal Co., Inc., to be inadmissible to New and Nonofficial Remedies, (1) because there is no acceptable evidence for the administration of a mixture of B. bulgaricus and B. acidophilus, and (2) because the preparation was marketed with unwarranted therapeutic claims.

Optolactin is the name applied by Fairchild Bros. and Foster to a tablet said to contain mixed cultures of B. bulgaricus and B. acidolphilus. The Council on Pharmacy and Chemistry declared Optolactin inadmissible to New and Nonofficial Remedies, (1) because there is no acceptable evidence for the use of the mixture, (2) because its name is not descriptive of the composition, and (3) because the circular accompanying the trade package is likely to lead the ill-advised use of Optolactin by the public.—(Jour. A. M. A., Jan. 13, 1923, p. 127.)

Bacillus Acidophilus and Intestinal Putrefaction.—While the administration of soured milk products is at times beneficial, the cause of this beneficial action is still undetermined. The belief that the Bulgarian bacillus can be permanently implanted in the intestinal tract and that this implantation is responsible for the effects is no longer tenable. Of late attention has been called to the effects of the administration of milk cultures of Bacillus acidophilus which is stated to be a normal inhabitant of the human intestinal tract. It is reported that this bacillus may be successfully implanted in the intestinal tract provided a suitable pabulum is provided. It has been assumed that the acidity of putrefactive organisms would be almost entirely suppressed by a change of the flora produced by the administration of milk containing cultures of Bacillus acidophilus and that with such implantation, the somewhat hypothetical toxic products charged with harm to the body might also be expected to be suppressed. If indican excretion, however, may be taken as an index of intestinal putrefaction, it now appears that implantation of Bacillus acidophilus in the intestine does not lower the putrefactive process. This suggests that favorable clinical effects produced by the administration of lactose cultures of Bacillus acidophilus are not primarily dependent on decreased

production of the antecedents to indican.—(Jour. A. M. A., Jan. 20, 1923, p. 186.)

Neisser-San-Kahn Not Accepted for N. N. R.—Neisser-San-Kahn is marketd by the York Laboratories as "a new genito-urinary product" with the claim that "in Neisser-San-Kahn the genito-urinary surgeon has at his command a new salt of marked value in urethral infections." The product is said to be a definite chemical body, zinc borosalicylate. Neisser-San-Kahn is claimed to be a new chemical compound. A preparation claimed to be zinc borosalicylate, however, was introduced about ten years ago (in Germany) as "Mucosan" with claims similar to those now made for Neisser-San-Kahn. The Council on Pharmacy and Chemistry declared Neisser-San-Kahn inadmissible to New and Nonofficial Remedies because (1) it is an unoriginal preparation under a proprietary non-descriptive name which the Council cannot recognize because the York Laboratories are not the discoverers of the product to which the name is applied, (2) the therapeutic claims are unwarranted, and (3) the available evidence fails to show that the preparation claimed to be zinc borosalicylate has any advantage over established zinc salts.—(Jour. A. M. A., Jan. 20, 1923, p. 201.)

Quayle's "Bob-White Habit Sinkers."—Charles H. Quayle, M. D., of Madison, Ohio, "Medical Director" of the "Dr. Quayle's Saitarium, a Retreat for Drug Addicts, Alcoholics, and Cigarette Inveterates" and "Specialist in Drug and Liquor Addiction," has been exploiting an alleged cure for chronic morphinism "and any other drug addiction." Formerly the treatment was "not for sale to any layman or person who wishes to treat himself" and physicians were importuned to use it. Today we find the Quayle's product advertised in the Police Gazette and similar literary productions. A "treatment" was purchased by a layman (for twenty-five dollars) and turned over to the A. M. A. Chemical Laboratory for analysis. The "treatment" consisted of four boxes of pills labeled as follows: "No. 1—Eliminative" (contained 3 cholocate-coated pills and 1 capsule); "No. 2—Antidote" (contained 323 yellow-coated tablets; "No. 3—Nerve Tonic" (contained 37 red-coated pills); "Special Eliminative Bowel Tablets" (contained 12 white-coated tablets). The analysis demonstrated that the "treatment" is essentially (1) active elimination by cathartics, (2) the adminsitration of atropin during the stage of morphin withdrawal, and (3) the use of strychnin at the close of the "treatment." It is evident that this is no more a cure than could be devised by any physician who is familiar with modern medical literature. No physician will believe that a patient suffering from chronic morphinism can cure himself by any such method as that exploited by Quayle.—(Jour. A. M. A., Jan. 27, 1923, p. 270.)

BOOK REVIEWS

Internal Medicine—A work for practicing physicians on diagnosis and treatment with a complete desk index. In three volumes. Illustrated with 427 text illustrations and 14 in color. J. B. Lippincott Co., Philadelphia. Price $20.00.

Medical Diagnosis—Sixth edition revised and enlarged in two volumes. Volume I, medical diagnosis in general, the method and their immediate results, symptoms signs, tests by James C. Wilson, A.M., M. D., emeritus professor of the practice of medicine and clinical medicine in Jefferson Medical College and emeritus physician to its hospital, physician emeritus to the Pennsylvania Hospital and physician-in-chief to the Lankenan Hospital, Philadelphia, formerly captain M. C. U. S. A., assisted by Creighton H. Turner, M. D. Volume II, the clinical application of diagnostic methods, the natural history of disease, direct and differential diagnosis, prognosis, James C. Wilson, A. M., M. D., assisted by Creighton H. Turner, M. D. Volume III, Treatment, by James C. Wilson, M. D., and Samuel Bradbury, M. D., member faculty of Cornell University Medical College and visiting physician New York City Hospital, chief of medical department, Cornell Clinic, Cornell University Medical College, New York, one time captain M. C. U. S. A. This work covers the field of internal medicines in a most thorough and comprehensive manner. It is seldom that there is published anything which is so complete for the use of those engaged in the treating of human ills. The mechanical makeup is all that the standard of the house of Lippincott leads us to expect. A work to be in the library of every physician.

Nursery Guide for Mothers and Nurses—By Louis W. Sauer, M. A., M. D., Senior Attending Pediatrician Evanston Hospital; formerly Attending Physician Chicago Infant Welfare and Assistant Attending Physician Children's Memorial Hospital, Chicago. Illustrated. This little vade mecum, written for mothers and nurses, gives in clear, concise form all essential details in the care and feeding of infants. Unlike other books it does not give hazardous feeding formulas and prescriptions. It tells how to care for the infant in health and in disease. The subject matter is coherent and systematically arranged. The illustrations are timely. C. V. Mosby Company, publishers, St. Louis, Mo. Price $1.75.

Text Books of Petriatrics—Edited by E. Feer, M. D., Director of the University Children's Clinic, Zurich; with the collaboration of E. Feer, Zurich; H. Finkelstein, Berlin; J. Ibrahim, Jena Ludw, F. Meyer, Berlin; E. Moro, Heidelberg; C. Noeggerath, Freiburg; M. V. Pfaundler, Munich; Frh. V. Pirquet, Wien; M. Thiemich, Leipzig. First American Edition translated and edited by Julius Parker Sedgwick, B. S., M. D., Professor of Pediatrics, University of Minnesota Medical School, and Carl Ahrendt Scherer, M. D., F. A. C. P., Duluth Minnesota. The various sections revised and edited, with numerous additions, by R. E. Scammon, Minneapolis; J. H. Hess, Chicago; L. R. DeBuys, New Orleans; B. R. Hoobler, Detroit; A. H. Byfield, Iowa City; N. O. Pearce, Minneapolis; M. D. Ott, Minneapolis; Joes. Brennemann, Chicago; W. H. O. Hoffman, Chicago; H. A. Calhoun, Iowa City; E. C. Fleischner, San Francisco; H. Dietrich, Los Angeles; P. C. Jeans, St. Louis; H. G. Irvine, Minneapolis; K. F. Meyer, San Francisco. Octavo. 1100 pages. 236 illustrations and 24 in color. Cloth, $8.50. Pediatrics is no longer a subject in which one author

can have complete knowledge of all branches. Therefore, this work is by a number of the most prominent pediatrists who were competent to write on special subjects assigned to them. The work of these associates and the new method of presenting the subject in this volume with its numerous apt illustrations justify its production. Special pains were taken to give full space to those diseases of childhood that are barely touched upon in general texts, but are of great importance to the pediatrist. More space than is customary is devoted to early infancy. The disturbances of nutrition are discussed by the most able authors in accordance with most recent research. The discussion of the disturbance of nutrition is based upon the study of the nutritional processes in the light of functional tests. These have led to a new classification and a more rational treatment. The older classification, though simple, is actually of little value as far as treatment is concerned. Special pains have been taken to enlarge upon the therapy. Noeggerath has completely revised the section on genito-urinary diseases, bringing out the advances made during the last few years in the study of nephropathies. J. B. Lippicott Company, London, Philadelphia, Montreal.

Clinical Laboratory Methods—By Russell Laudram Hoden, M. A., M. D., Associate Professor of Medicine, University of Kansas School of Medicine, Kansas City, Kansas; formerly Director of Laboratories Henry Ford Hospital, Detroit. With 69 illustrations and 5 color plates. St. Louis. C. V. Mosby, 1923. Price $3.75.

Clinics and Collected Papers of St. Elizabeth's Hospital, Richmond, Virginia. Volume of 1922. Contributed by the Staff. Illustrated by Helen Lorraine. St. Louis, C. V. Mocby, 1923. Price $7.50.

The Propaganda for Reform in Proprietary Medicines, Volume 2. Part I—Reports of Council. Part II—Contributions from the Laboratory. Part III—Journal Contributions Proprietary Products. Part IV—Journal Contributions Miscellany. The present volume contains material covering the period from January, 1917, to April, 1922, inclusive. Press American Medical Association, 535 N. Dearborn St., Chicago.

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ORATION ON MEDICINE

Delivered at Fifty-sixth Annual Meeting of West Virginia Medical Association, Beckley, June 1923

By MANFRED CALL, M. D., Richmond, Va.

Mr. President and Fellows of the Medical Society of West Virginia:

In proportion to my appreciation of the honor of addressing you on some subject of interest to the profession, have I been in doubt over the selection of the material for presentation.

A recital of the advances in medical science or practice, a description of exploration in hitherto unknown realms excites our interest and brings with it a fullness of pride in a profession that has accomplished so much for the welfare of mankind.

I doubt, however, if the complacency which tends to be engendered by the recital of such achievements has not a sedative effect on the members of a profession, who, perhaps like other mortals are not averse to praise and sometimes hunger for public as well as private recognition of faithful work efficiently performed.

During the past year the subject of Medical Education has forcibly injected itself into my consciousness with an increasing insistence for a fuller recognition and understanding, and this urge had its birth coincident with the assumption of the duties devolving on the Dean of a Medical School.

You would hardly imagine that the assumption of such administrative duties by one who had already been engaged in the didactic and clinical teaching of medicine for twenty-three years, could so modify one's conception of the importance of medical education, not only as it affects the undergraduate student and teaching faculty, but as it affects and is in turn affected by the educational system of the State, with its high schools, public and private, its colleges of liberal arts

and sciences, and its great teaching universities.

Not only so, but the beneficent results that flow in increasing measure from the activities of the graduates of our medical institutions, physicians, dentists, pharmacists and trained nurses, infiltrate every strata of our social structure and are available in some form to every citizen, rich or poor, in crowded city or scattered hamlet, throughout the length and breadth of the Commonwealth. These activities include the prevention and cure of disease, the intelligent care of the crippled in mind or body, State, Municipal, and County Board of Health activities with their various endeavors, nutrition institutes, child welfare clinics, all closely linked and dependent on this medical education.

To the Profession, Medical Education as it functions today should assume an importance of the first magnitude for the following reasons:

First, Because of the vast additions to medical knowledge, the responsibility of the medical profession has been correspondingly increased.

These advances consist of the acquisition of new facts, or a better application of and interpretation of old facts. The real contributions to the sum total of our knowledge are usually the result of special efforts on the part of research workers, teachers, or clinicians, singly or in collaboration, usually at some teaching centre, where their clinical application has been put to a crucial test, and from which centre they filter to the profession generally.

Secondly, Because an approximate solution of many of the medical problems of today and an intelligent understanding of much of our medical literature requires a familiarity with, if not an intimate knowledge of, the various fundamental sciences only recently incorporated in the medical curriculum.

Thirdly, The tendency of the profession to accept purely speculative interpretation of clinical phenomena as though such speculation were well-established principles, requires the cultivation of a more discriminating judgment and a more effective training in abstract thinking if the profession is not to spend its time chasing many an elusive will-o-the-wisp of a pseudo-scientific origin but of no real etiologic, diagnostic, or therapeutic value.

Fourthly, Because the organized forces of medical education are constantly pointing out the changing educational needs and are emphasizing the fundamental lines along which the medical profession must travel if it is to keep its ever receding goal always in sight.

If the medical faculties of the American schools need the inspirational leadership of men like Deans Emerson of Indianapolis, Cutter of Omaha, Bardson of Wisconsin, Ecclysheimer of Illinois, Wilbur of California, and others like your own Dean Simpson, to an even greater extent does the profession at large need to keep before it a similar visualization and conception of what constitutes the Art of Medicine; and using this as a mirror each member can then evaluate himself and his work as an individual practitioner and as a member of a great profession.

The attitude of the profession and that of its teachers on the Spirit of Medicine has been notable chiefly by the lack of its expression. I take occasion at this time to voice my feeling of personal obligation to Dean Emerson for his illuminating contribution on this theme at the recent meeting of the Association of American Medical Colleges at Ann Arbor and the conference which followed in Chicago and to commend them to you for their informative and inspirational value.

There seems to me to exist a striking analogy in the relationship existing between a professor and a medical student on the one hand and that of the physician in his relationship to the public, singly or in mass, on the other hand. Our own shortcomings in this latter relationship may be compared to similar shortcomings of our schools which are attributed by Smith of Atlanta, to lack of insight, inspiration, understanding and devotion on the part of the instructor, and to loose thinking, vaguely conceived or misconceived objectives, failure to comprehend the nature, the validity and the limitations of our undertaking and the consequent slovenly or merely mechanical treatment and presentation of the material. This same lack explains our failure to measure up to the responsibilities of medical leadership expected of us by the laity and its failure commented on and deplored on many occasions by the profession itself.

"Graduates have not always been leaders in great public movements; quacks and fanatics frequently monopolize the place of leaders. The great national societies claim to be necessary because the general practitioners do not do their work."—(Emerson.)

Such leadership can come only with education; it can never be a mass movement but must be the result of individual or group effort.

As a profession we are not prepared for many of the duties expected of us, nor should we attempt to assume the responsibilities attendant on such duties until our knowledge justifies us in its intelligent application.

The reason for this becomes apparent when we realize that the problems which have called into being the great national associations for Public Health, Personal Hygiene, etc., call for a highly technical training and an intimate knowledge of methods and organization not required in the successful pursuit of everyday practice.

Any attempt to organize the profession in a given community for a campaign to demonstrate to such community the supposed authoritative position of its medical profession in all matters that relate to public health is doomed to failure unless the profession is carefully coached by competent leaders on the specific subjects to be exploited. You can readily see what harm might follow injudicious utterances, representing merely ill considered personal opinion absolutely at variance with the constructive efforts put forth by those in authority and representing a definite plan, carefully evolved and slowly gaining ground and overcoming an antagonistic public opinion; for instance the medical supervision of public schools, the control of venereal disease, or what not.

Strong currents are running in all fields of activity, professional

and industrial. Where are they carrying us, and are we as a profession, awake to the possibilities, or are we so engrossed with the day's routine that we are oblivious to the ever changing panorama, and to the part we as individuals may have the opportunity to enact? Are we preparing for the leadership we should assume?

Truth is not always savory, therefore, it behooves us to realize that a self satisfied profession is a somnolent profession; that a commercialized profession is a degraded profession, and that an indifferent profession would substitute self-ease for service.

Fitness for service is the aim of all medical education and service concerns itself with the small details of everyday life as it affects the individual more frequently than it calls one to some colossal task that affects the multitude.

Fitness for service may be present without the consciousness of it on the part of one who only needs the opportunity to measure up to the occasion.

Willingness to serve must be joined with the fitness for service otherwise a definite opportunity for efficient service may be lost. Service to be complete usually entails some degree of sacrifice somewhere.

How does the profession measure up to this ideal of service?

Martin has divided the profession into three groups: An upper third, leaders in research thought and helpful activity; a middle third, strong, able, clear-minded men who follow the lead of the upper third; a lower third, prejudiced, ignorant, self-centered.

Granting that this last third represents the undesirable element of the profession and that a certain proportion of these in turn represent the product of low-grade colleges, now happily out of existence, the fact remains "that a certain number of young men enter upon the study of medicine who are unfitted for it in education, in spirit, in morals, and in courage. These, finding it impossible to carry on successfully in ethical fashion, disappointed in the gratification of ambition, or in the desire for high financial returns, backslide into quackery, knavery, suicide, drug addiction." Are not these professional misfits analogous to any industrial misfit, unhappy, unsuccessful, discontented, irritable, possibly the possessors of an inferiority complex?

Whether Martin's estimate of the percentage of medical leaders is too high or too low I cannot say, but I do feel that every right thinking member of the medical profession is a potential leader at some place, in some cause, at some time, and to be a leader connotes service.

The development of medical leaders and the future of the profession is in large part a responsibility of the medical school for it is only through the door of the Medical College that candidates can enter the profession. Miller in a brief on the Responsibility of the Medical Schools for the Future of the Medical Profession gives as present problems causing anxiety to the medical profession and a feeling of uncertainty as to the final outcome, the encroachment and power of certain cults, the development of group practice, and the menace of state medicine illustrative of the "jeering phantoms which Osler said still beset in varied form the path of each

generation." Miller believes "The result of present day effort on the status of the profession fifty years from now is problematical. There is one thing, however, that will determine the character and status of the profession in the next generation, and its place and power in the community, and that one thing is the type of student we admit to our medical schools. If we admit a high percentage of mediocre students in this generation, no power on earth can save the medical profession from mediocrity in the next generation. On the other hand if we admit a preponderating number of students who have in them the qualities of greatness and leadership, we need not concern ourselves about the little problems that will crop up along the way."

The central idea in this statement stresses the need for safe because sane leadership. I am convinced that it would be foolish to materially curtail the number of medical students unless we could get a superior type to take advantage of the opportunity for training partly wasted on the mediocre man. I would be perfectly willing to eliminate the last third suggested in Martin's classification provided we identify them in time.

It may be of interest to compare the candidates for the study of medicine with a similar group who enter the ministry, and to quote the testimony of Bishop Lawrence of Massachusetts who has asked the question, "What is wrong with the ministry?" He claims that "the great body of the ministry, as is the case with the great body of doctors and lawyers must be men of only middle class ability," and he continues, "A college degrees does not make big character. Even the middle class positions call for men of fine and positive character, of good sense and devoted life. In addition there must be a certain proportion of men of stronger type, who have been drawn out from the multitude by the process of selection, and have been given adequate training. It is only by personal touch and leadership that young men are drawn. If they are to become leaders they must have teachers who have the intellectual and moral courage to be the leaders of future leaders."

I believe the average professional life of the membership of this Society is over fifteen years and that the greater number of such members have not been especially interested in and have not kept in touch with the changed conditions of the medical education of today. With the object of reawakening their interest in the subject and enabling them to see the similarity between the clinical teacher of today and the active members of the profession in their daily contact with their patients and with the same actuating motives I will briefly discuss the medical college.

It is undoubtedly an institution of higher learning in the academic sense, and as an institution of higher learning it is closely linked with all educational institutions from whose fertile fields it has gathered the necessary elements not only for its nutrition and growth, represented by its faculty but also the material to be evolved by its own processes, by its own faculty, into its own products, scientific servants of the human race.

The medical college does not stand as an isolated institution. Its tap-root is firmly planted in a high

school soil. With the present premedical requirement of not less than sixty semester hours of college work, the equivalent of a two years college course, and this in turn predicated on the satisfactory completion of not less than fifteen units of high school work, of four years duration, the bond of unity between high school, college, and medical institution is at once apparent.

These three have a reciprocal interest and duty.

When the establishment of a minimum academic training, as a prerequisite to the study of medicine was first agitated, it was found that the educational situation in the South was such at the time that a four years high school requirement could not be immediately demanded, because there were comparatively few high schools in the South at that time on a four year basis. The need of medical education at the time of this agitation played an important part in hastening the establishment of the four year high schools in the South, and is today influencing the curricula of such schools.

The relationship of the medical college to the college of Liberal Arts is still more striking, both as regards the arrangement of courses and the quality and the efficiency of their teaching.

The duty of these preparatory schools does not cease with a certification of a student's attendance on designated and required courses, and the evaluation of his work during such attendance.

A measure of pride and a healthy interest in their students leads not only to a personal communication with the Dean of the Medical School, but a report from the medical school to the preparatory school of each student's standing. Thus an index of efficiency is furnished and the opportunity is afforded for the strengthening of courses which have proven weak in the preparatory school. This has had an enormous influence in advancing the cause of education in general.

Contact of the medical college with allied institutions and with those of even higher learning, the true post graduate schools of universities, is essential for the interchange of ideas and of methods, and to prevent institutional apathy and retrogression and the degeneration of institutional inbreeding. My own faculty has been greatly strengthened, our horizon broadened and a higher plane of faculty work reached by association with such university trained men.

Again this contact affords the opportunity for the selection and placing in this advanced work students who, during their four years of undergraduate work, have demonstrated those qualities of fitness for this especial type of post graduate instruction.

Note the distinction between undergraduate medical instruction and post-graduate advanced work.

A most salutary crystallization of opinion on the subject of post graduate instruction has come to pass. The near future will probably show as great an evolution along this particular line as has transpired in the undergraduate medical school. There will certainly be every encouragement for every indiviudal practitioner to increase his own store of medical knowledge and experience and every facility offered him to perfect himself technically in those things which interest him.

But the days are quickly passing when men without aptitude and with inadequate post graduate opportunity can proclaim themselves specialists in this, that or the other field of medicine or surgery.

There is much to commend the suggestion that certificates of post graduate instruction be granted only after a specified residence and after the completion of a definitely outlined and acceptable course of instruction in an acceptable institution — not in the undergraduate medical school.

The post graduate schools of universities and the various research foundations for graduate work are doing much to direct the attention of the profession to the necessity of advanced work being undertaken under favorable and environmental condition and with an adequate faculty and facilities for those who wish to enter the rank of well qualified teachers, research workers or specialists, and, for those, the advanced degrees of Doctor of Philosophy, Master of Art in Medicine will be credentials of vast importance to the undergraduate medical schools, to the profession and to the laity. Such teachers and research workers in undergraduate medical faculties provide the most important contact of the medical school with the national scientific associations of non-clinical men.

While the teaching of the fundamental science, anatomy, histology, embryology, Biochemistry, Physiology, Pharmacology, Bacteriology, and Pathology, usually completed in the first two years of the medical curriculum, is necessary for the basic understanding of the science of medicine, unless this teaching is closely linked with that of its clinical application in the student's contact with patients, a great opportunity has been lost, and the medical school has failed in its chief function. For its highest duty is to transform or transmute the mental attitude of a student, whose mind has been loaded with the cold facts of science, into an individual, who, in the application of these hard facts to the solution of the ills and vagaries of every day practice, shall so deal with the human equation of the patient and himself as to develop the art of healing and exemplify its high ideals by an ungrudging service.

If the fundamental sciences are closely linked with the clinical instruction by departmental contact at the bedside and in the laboratory, our medical teaching faculties are then in a position to mutually support and develop this dual viewpoint and in the phrase of Cotter, "Turn out a product who will maintain a superstructure of service on a foundation of science."

To a medical school a teaching hospital and out patient departments is more essential than a lecture room and just as essential as laboratories.

The prime object of the hospital is the cure of the patient, an understanding study of his disease, and an intelligent treatment once the diagnosis is established.

This brings to the fore the clinical men, who are identified with the hospital wards. In his paper on Professors and Clinical Professors of Clinical Subjects, Emerson's discourse is strikingly true.

"A student's medical education begins in the wards and dispensaries; the pre-medical and preclinical years are but the prepara-

tions for this. The more elaborately, therefore, we plan our scientific courses, so much the more elaborately and cautiously must we plan our ward teaching where all this science must actually be translated into terms of human life. That is, the better the teachers of the preclinical or fundamental sciences, the more carefully must we select clinical teachers who can rise to each added responsibility imposed on them by the laboratory men. It is the clinical years by which a school is finally judged. It is in order that they might study with clinical men that our students toil through at lease four pre-medical and preclinical years. . . . A science speaks for itself to a student but a clinic is the man himself in action and the student will learn from a clinical teacher much that he little intends to teach.

"His personal attitude toward and dealings with his patients will betray to his students his ideals, his intellectual honesty, and his professional integrity far better than can his spoken words. What he unconsciously teachers and what they unknowingly learn will actually influence their character as professional men and women far more than can the ever changing medical lore which he discusses with them . . . plan the clinical years with earnest solicitude, for one plausible but low minded clinical teacher can debase the high morals of almost a whole class . . . intellectual brilliancy and proven research ability are not enough; another quality is just as necessary in the professor and that is love of fellow man which prompts one to dedicate all his powers to this profession regardless of any earthly reward. The professor may be splendidly scientific and yet be a brute—he may be richly endowed with all the art of medicine and yet be a quack . . . there are two men to be afraid of: the man who judges practice by income, and the man who considers every ward case as a laboratory animal.

"The practice of medicine involves many ethical points and moral qualities do not come spontaneously.

"Students too frequently are taught the tricks of various specialties and do not get the spirit of the subject.

"Post graduate instruction is too frequently an opportunity to change lightly from one specialty to another."

I doubt not that these rapier like thrusts will make as profound an impression on you as they have made on me. An aroused professional and teaching conscience will do much to plant our feet on the bed rock of professional idealism and fortify us in a resolve that Medicine shall not suffer from our own indifference and ignorance.

One would think that after four years of this intensive medical study a graduate should be fully prepared to take up the responsibilities of a practice. Theoretically he is, but a study of the report of the Committee on the Curriculum of the Association of American Medical Colleges will explain in part why an additional interne year is desirable.

"The rigidity of the curriculum is its greatest fault operating as it does to cramp both the student and the institution. Few if any schools there are which have not added extensively to the required hours in the more or less natural line of de-

velopment. There has thus resulted in many schools a very fixed schedule in which practically every hour of the day, to say nothing of the night, is occupied by assigned, supervised work throughout the four years. It is a matter of common knowledge that it is not rarely impossible to find a single hour which can be placed at the student's disposal, so to speak for his own use. The committee believes that sounder and, so to speak, rounder development of students will take place with a lesser amount of assigned teaching, giving more time for general outside reading, not necessarily of a medical character, for exercise, and perchance for contemplation. The committee thinks there is evidence that on the present system of what might be called forced feeding considerable intellectual indigestion has resulted and that students come to the later years of the medical course intellectually fagged."

Facts in great number have been acquired during the four years undergraduate training but time has been lacking for the assimilation of these facts, nor has opportunity been afforded for the organization of the experiences destined to follow the later application of these facts at the bedside.

Downing of New York has stated that while hospitals all over the country take internes, instruction oft times is not provided and the staffs of many of these hospitals are selected for all sorts of reasons and not primarily for their ability as teachers. Until medical schools have their hospitals entirely under their control and of sufficient size and capacity for its own students an intern year should not be made a pre-requisite for a license to practice. In the opinion of Emerson any hospital is a menace in which business comes first, housekeeping second and the professional conduct last. The interns must be responsible to the hospital and not to the physician. The authorities must pick out the surgeon and the physician who shall be responsible regardless of the chance of creating a medical row. The value of the interne depends on the supervision of his work and the value of the hospital depends on how it is run.

This incomplete survey of some of the salient points in medical education should be supplemented by a similar or closer study of the problem as it pertains to the closely related professions of Dentistry, Pharmacy and the Training School for Nurses.

Varied as are the duties and great are the responsibilities of these four classes in this particular field—that of the State, the municipality, the county and the public are infinitely greater.

If medical education is to accomplish that for which it was designed, we as a profession must not only learn our own lesson but initiate a campaign for the enlightenment of the public in order that a realization by the public of its own duties and responsibilities will bring forth a mutual respect in providing valiant support, the resources so urgently needed for its own protection and advancement.

MAYOR'S ADDRESS OF WELCOME

Delivered at Fifty-sixth Annual Meeting West Virginia Medical Association, June, 1923

By MAYOR C. V. COTTLE, Beckley

Mr. President, Ladies and Members of the West Virginia Medical Association:

I consider it a great honor to be Mayor of this little city at this time and to have the pleasure of extending to you a hearty welcome.

Not because it is customary, but because of you and who you are. I assure you it is to me a pleasure.

I speak for the city officials and the citizens of the city and bid you to make yourselves at home wherever you may be at all times. And the only bad luck that I will wish you is that you may elect to come back to us next year.

We are proud of our city and its people; we are proud of our doctors and surgeons, they are of the best, not only are they good in their profession, but of our best citizens and business men; some find time to engage in the banking, coal, real estate and other business and I am proud to say they are just as successful in these as in the practice of medicine—attentative and thorough.

We have doctors here who when called on a case will not sleep until the patient is out of danger and on the road to recovery. Some are so attentative it reminds me of a story I heard recently about one of our most successful doctors. He became very much interested in a young lady of the city and had made up his mind that she would make a doctor a most admirable wife, so the doctor, thinking he would have to be on hands most of the time and talk his case much and long, spent most of his leisure time in her company. The young lady thought very well of the doctor but she had always had a horror of ever being a doctor's wife, so as things went on and the doctor insisted he would make her a good husband, she began to worry about how to tell the doctor she could never be his wife. She became despondent and did not eat or sleep much. The mother mentioned the fact to the doctor. He prescribed for her and after taking his medicine for awhile, decided she would take a visit. After some two weeks away she writes the doctor, "Dear Dr. Grigg, since coming here and having ceased taking medicine I have gained ten pounds and am feeling fine." The doctor was in love.

I told you we were proud of our city, situated on this mountain twenty-five hundred feet above sea level, the best climate in the state, a thrifty cosmopolitan people; good water, good roads, schools and churches.

I came to this city twenty years ago. At that time 90% of the territory where Beckley now is was farms and woodlands. I helped build the C. & O. and Virginian railways into this county. Since that time the railways have built branches up every hollow and valley in the county and today there are 56 coal operations in the county. This has all been done within the last 15 years. We number among these some of the best mining camps in the whole country. Our city has four prosperous banking institutions, of which we are

very proud, some of whose deposits reach into the millions.

I simply mention these facts to you from a distance that you may know you are among a progressive and wide awake people.

There might only be one thing said of our doctors and that is they are very much in love with the cow, so much that she is allowed to be a privileged character on our streets night and day.

The question has been asked by one of your profession from California, "Is the physician of today a good citizen?" In the sense that he usually keeps out of jail or almshouse—yes. He usually pays his debts, lives peaceably with his neighbor and does not make himself a nuisance in the community. He is ready to give freely of his means to charity, to pay his taxes promptly though grudgingly, and to serve his country in time of war, but he takes little interest in the public health of his community, in medical legislation, in county, state or national politics. In these respects, we are sadly assured, he does not live up to his capabilities, his opportunities, or his obligations.

We talk a great deal as a profession about the hold that the members of certain medical cults are obtaining in the communities in which they live. We deplore the fact that in many places they are becoming members of county boards and State legislatures. Yet as physicians, we are prone to neglect these provisions and to leave them to the members of the profession who cannot make a living in their profession, or to be members of the cults. We are inclined to regard the occasional enthusiastic young physician who goes into public health work as an incompetent or a crank and fail to support him either by our interest or our cooperation.

When a young physician asks our advice about public health as a career, we tell him to go into surgery.

The teaching of public health in our medcial schools is almost everywhere a farce. Despite this bad teaching, however, many men with years of experience in infectious diseases, for example, come to have very excellent judgment which should be placed at the disposition of the community in public health affairs. But often they simply stand aloof and criticize.

Why do we not have better men holding the position of county coroner? Because better men do not seek it. This position should be held by physicians with good judgment and keen investigative ability. The punishment of crime in our country is so lax that criminals multiply. Many of the failures of justice in homicide may be traced directly to the stupidity of the coroner or his assistant in not discovering the essential facts.

"There is almost as great necessity for physicians to take part in community as State affairs, not primarily related to their profession, as in those principally concerned therewith. The most schooled citizen of the community is all too seldom on the school board. The real estate agent, the coal dealer, the banker are there because they are, forsooth, business men and are presumed to save the taxpayers' money. But the health of the school children is seldom considered officially by the citizens who should know most about it, and educational policies of school men receive no au-

thoritative constructive criticism from physicians who should be most fitted to so criticize.

Rarely do physicians of sound judgment seek election to State legislatures, or if they do, it is in a half-hearted manner and without adequate support from the other members of their own profession. As a result we have the spectacle yearly of State legislatures perpetrating the most asinine legislation in relation to health, to medical licensure, and to education. In the meantime the legislative committee of State medical societies in their reports annually deplore the legislative actions taken, and express futile hopes for improvement in the future. The way for physicians to get for the community sane health, licensure and educational legislation is to take a hand directly in its making. Unfortunately, getting elected to do this is not so easy for the physician. He has so long and so assiduously cultivated the narrow vein that his duty is solely to the patient, that the patient when turned voter is apt to regard the doctor as his personal attendant only and without knowledge or experience beyond that function.

If we had in the halls of Congress more broad-gauge physicians, men who had previously proved their public worth in narrower civic fields, would we have so much stupidity, stalling and gallery-play as now exist there? It is fair to assume that the physician's training both in and after school fits him to analyze data, draw logical conclusions, and make estimate of probable consequences, certainly in all matters involving natural phenomena, including psychological, his observation and judgment should be the equal of if not superior to that of any man of any other calling.

But so long as physicians foster the fiction that their sole duty is caring for the sick, so long will the well take them at their word and concede to them no measure of public worth either in small or large affairs of State. I would urge, therefore, physicians to be not less faithful in their duties as physicians, but also to be much more faithful in their studies as citizens, since they owe it to themselves, to their profession and to the community.

Is it possible for any physician to be successful professionally, to be on the surface a good citizen and to have the appearance of culture and yet be without character? Yes, of course, it is difficult to conceive that the really honest practitioner, the really thoughtful student, who takes a live interest in his community and in his State, and who steadfastly seeks knowledge may still be without integrity, yet there is at least sufficient of a margin of such possibility to warrant our speaking specifically of the necessity for every man giving thought to this side of his nature as well as to those already mentioned.

We cannot all, like kings of old, have fools in our retinue to tell us the truth about ourselves, but we can cultivate our common sense of right and wrong which, as the voice of conscience, will keep us from being fools ourselves. Without this corrective, even the best of men become puffed up with egotism and think that the world trembles as they walk, seem to lose hold of their sense of proportion and to forget

that even the best of men are far from perfect.

The American medical graduate of the last ten years has become on the face of it the most schooled man of his age. He should be not only the most scholarly, but he should come to stand in his community for the highest citizenship, the broadest culture, and the most noble character. If he does not seek in his daily life, professionally, intellectually, and morally, to develop himself to the highest level to which he is capable of attaining, he is betraying the trust of the State which has expended on his early training thousands of dollars more than he or his parents have ever paid into school treasuries.

Talking about graduates and students recalls to my mind two of our finest Raleigh county young men who have chosen the medical profession as their vocation in life and who are among our best doctors today. When they were in school at Baltimore I had occasion to visit them and found one of them in bad humor. So I said to K. M., "What is wrong with D. B.?" He replied they had kicked him out of the library. I asked what for. He said they caught him trying to remove the appendix from a book he was reading.

In my opinion the profession of medicine and surgery is the greatest on earth today. I fear sometimes doctors do not realize their responsibility to humanity. The doctor is the one into whose hands life is given; he looks after and is responsible in a way for the public health. Then he is the one that sits by the sick bed and watches the ebb and tide of life, and who, when he has done all in his power to restore the health of his patient and fails as they sometimes do, hands back to the Giver Of All Life that which has been in his keeping.

Gentlemen, are you measuring up to your responsibility?

And can it be said that you can look up and say in the language of the poet:

Where is Heaven?
Is it not just a friendly garden plot,
Walled with stone and roofed with sun,
Where the days pass one by one,
Not too fast and not too slow,
Looking backward as they go,
At the beauty left behind
To transport the pensive mind?

Does not Heaven begin that day
When the eager hearts can say,
Surely God is in this place,
I have seen Him face to face?
In the loveliness of flowers,
In the service of the showers,
And His voice has talked to me,
In the sunlit apple tree.

ADDRESS ON BEHALF OF THE ASSOCIATION

Delivered at Fifty-sixth Annual Meeting, Beckley, June 1923

By DR. J. HOWARD ANDERSON
Marytown

Less than fifty years ago Raleigh county was but a wilderness. Primeval forests crowned her brow. Undreamed-of mineral wealth remained concealed and locked within the bowels of her lofty domes and craggy peaks.

But within the last decade a few dauntless leaders, throwing into the crucible of intense thought and action—here some rails and ties for a carrier, there a buzz-saw and plainer for the timber, yonder a tipple for the coal and dwelling for the workers, have speedily formed and produced a unique civilization of wealth and beauty. Thus the

"Land Overlooked" has become the "Land of Promise."

The highest honor any man can confer upon another is to extend to him the hospitality of his home.

It is this honor, Gentlemen, you have just now conferred upon us. Would that I had the simplicity and forcefulness of a Lincoln—the command of language of a Webster—the eloquence of a Clay—that I might fittingly express the appreciation of the West Virginia State Medical Association, of the hearty words of welcome with which we have been greeted, and becomingly acknowledge the magnificent hospitality extended to us by you.

It is with great pleasure, I assure you, that the West Virginia State Medical Association celebrates its Fifty-sixth Annual Convention within the gates of your delightful mountain city.

We salute you—because of the beauty of your surroundings—because of the excellency of your citizenship—because of the nobility of your local medical profession. Your hustling industrial and professional life surrounds us with an atmosphere which cannot help but act upon us as a stimulus, and inspire us, individually and as an Association, to play, even more enthusiastically and energetically in the future than in the past, the great part in the economic life of our beloved Commonwealth which falls to the lot of our noble profession.

But why multiply words? Let me simply say, we, as an Association and as individuals, graciously accept your proffered hospitality. We in turn offer to you of our medical lore, in which the glorious past of our Association is rich. For great men have passed this way, and in the passing have left for us a legacy of inestimable value.

We feel sure that amidst such surroundings and under such stimuli the Fifty-sixth Annual Convention of the Association will prove the most profitable and enjoyable of our history. For—

There are loyal hearts—there are spirits brave,
There are souls that are pure and true;
When you give to the world the best you have
The best will come back to you.

MINUTES OF COUNCIL MEETINGS

The Council met on Monday, June 11, 1923, at eight P. M., in the Elks' hall, with Dr. G. D. Jeffers presiding.

Dr. H. P. Linz reported the First District as being in good condition. Ohio County has ninety-eight members, with 103 paid up. Brooke County is in good shape. Hancock County has not reported to the State Secretary because all the dues are not in, but all will be paid shortly.

The lower end of the First District was reported upon by Dr. C. G. Morgan, who stated that it is in excellent condition, flourishing and harmonious.

For three counties in the Fourth District, Dr. J. E. Rader reported as follows: Lincoln County is still unable to maintain a society. Wayne County Society joined with Cabell County. In the Cabell County Society there are eighty-six paid-up members, and the Society is doing good work.

Dr. G. D. Jeffers reported for the upper end of the Fourth District, comprising Jackson, Mason, Pleasants, Putnam, Roane, Tyler, Wirt and Wood Counties. All are in good condition, with about fifty-one

paid-up members, and everything harmonious. The present year has been a progressive one, with some good meetings.

Fifth District: Dr. J. Howard Anderson stated that while last year the McDowell County Society was in rather poor condition, it now has rallied and has ten new members. The meetings are good, with interesting papers, discussions and clinical cases. In Mingo County there is now a whole-time health officer, who has been of advantage not only from the health viewpoint, but has taken a very active part in the County Medical Society. The Mingo County Society is now in better condition than ever before. In Wyoming County there are not enough men, and they are so scattered that it is impossible to form a society. The same is true of Monroe and Summers. Some of the Monroe County men have affiliated with other counties.

Dr. H. G. Steele, of Bluefield, reported that Mercer County is flourishing, and he thinks it one of the best societies in the State. Fifty-two members are paid up, out of about sixty. Meetings have been held monthly during the past year, with papers and clinical cases by the local doctors, and some outside physicians invited.

Sixth District: Dr. R. H. Dunn, of Charleston, reported 130 paid-up members in Kanawha County last year, and 111 this year. The meetings are held twice a month except during the summer. Greenbrier County several months ago promised to make an effort to organize.

Dr. J. R. Bloss, Editor of the Journal, read his report, and the President appointed Dr. C. G. Morgan and Dr. J. Howard Anderson as a committee to audit it. Upon motion of Dr. H. P. Linz, the following committee was appointed to take the report under consideration and report back to the Council: Dr. Linsz, Dr. Anderson, Dr. Morgan, and Dr. J. E. Rader.

Dr. MacQueen asked for information as to what appeal a doctor has who is excluded from his local medical society, and is thus prevented from joining the State Association and the American Medical Association. He said that a doctor in Parkersburg says he is excluded for personal reasons only. Upon motion of Dr. H. P. Linsz, Dr. MacQueen was directed to instruct the physician to present his case, in writing, to the Council.

Dr. C. G. Morgan reported for the Auditing Committee that they had gone over the Editor's report and his cancelled checks and found them correct. The report of the Auditing Committee was accepted.

Sixth District: Dr. B. B. Wheeler, of Beckley, reported his part of the District as being in good condition, with the physicians for the most part working harmoniously together.

Upon motion of Dr. Ashworth, the following committee was appointed to audit the books of the Secretary and of the Treasurer and report to the House of Delegates: Dr. G. D. Jeffers, Dr. H. G. Steele, and Dr. B. B. Wheeler.

Upon motion of Dr. J. Howard Anderson, the Chairman was instructed to send a telegram to Dr. C. H. Maxwell, of Morgantown, expressing the regret of the Council at his inability to be present and their hope for his early recovery, and sending their best regards.

The Council then adjourned.

Tuesday, June 12, 12 M.

The Council met in the Elks' Building, with Dr. G. D. Jeffers presiding.

Upon motion of Dr. H. P. Linsz, Dr. J. R. Bloss was re-elected as Editor of the Journal.

Dr. Linsz reported for the Committee on Medical Defense that there are a number of suits pending. Nearly all the suits have been won. The Committee endeavors to delay as long as possible the payment of fees, in order not to drain the treasury. The reason why the defense fund has gone below five thousand dollars is because several suits were hanging over from last year.

REPORT OF COMMITTEE ON EDITOR'S REPORT

We, the Committee appointed by your President to report upon suggestions made by Editor Bloss in his Annual Report, do herewith heartily approve of this report "in toto" and further do recommend to the House of Delegates the following:

First, That Editor Bloss be authorized to publish a short volume of the Journal embracing only six issues, namely July to December, 1923, inclusive, so that the contents of future volumes may correspond to the fiscal year of the Association.

Second, That the Annual Dues of the State Medical Association be increased from $5.00 to $10.00 in order that we may be able to finance the increased cost of the publishing of the Journal and continually increasing expenditures of the Association.

Respectfully submitted,
J. E. RADER,
CHAS. G. MORGAN,
J. HOWARD ANDERSON,
HENRI P. LINSZ,
Committee.

HOUSE OF DELEGATES

The House of Delegates met on Monday, June 11, 1923, at eight P. M., and was called to order by the President, Dr. John N. Simpson.

Dr. J. E. Coleman, of Beckley, reported for the Committee on Arrangements that all arrangements had been made, and that announcements would be made in printed form.

The report of the Committee on Scientific Work was read by the Secretary, Dr. Robert A. Ashworth.

The report of the Committee on Publication was read by Dr. James R. Bloss, Editor of the Journal.

Dr. C. A. Ray, of Charleston, read the report of the Committee on Public Policy and Legislation. Following the reading of this report, the President stated that during the last session of the Legislature the American Medical Association had been asked to send their paid lobbyist to aid in defeating the bills for licensing chiropractors and osteopaths. They replied that they have no lobbyist, but later offered to send a representative. Dr. Simpson, President, suggested that the State Association organize a body of lobbyists at Charleston to look after matters of this kind, the responsibility being one which the whole Association, and not individual members, should bear.

Dr. George A. MacQueen, of Charleston, moved that the report

of the Committee be laid upon the table until such time as the President can give not less than two hours for the re-reading and discussion of it before a full meeting. This motion was seconded and carried.

The Secretary's report was read by him, and upon motion of Dr. J. Howard Anderson, of Marytown, (seconded by Dr. MacQueen), was accepted with a rising vote of thanks for the work of the Secretary in the past. Dr. Anderson suggested that a committee be appointed to consider the Secretary's report and report at a later meeting of the House of Delegates.

Dr. Hugh G. Nicholson read his report as Treasurer, and upon motion of Dr. Walkup it was accepted. As a supplementary report, the President stated that $350 of the loan fund was given to two brothers, sons of a minister and both ex-soldiers, and both among the best men ever at the University. They hope to pay back the loan this fall.

Mr. G. H. Winfrey, Secretary of the Medical Society of Virginia, addressed the House of Delegates on the subject of automobile insurance for physicians, stating that the physicians of America are losing about four million dollars yearly in paying losses caused by other drivers of automobiles. He asked that a committee be appointed by the President to go into the matter and present it to the Association, and upon motion of Dr. MacQueen, seconded by Dr. W. E. Vest, a committee of three was appointed. Members: Dr. H. G. Steele, Bluefield; Dr. W. E. Vest, Huntington, and Dr. George A. MacQueen, Charleston.

A resolution from the Cabell County Medical Society was presented by Dr. Bloss, recommending Dr. C. R. Enslow and Dr. E S. Buffington for life membership in the State Medical Association, and Dr. Enslow for affiliate membership in the American Medical Association. Dr. H. P. Linsz moved the adoption of the resolution.

Upon motion of Dr. Linsz, the President appointed a committee to draw up resolutions concerning deceased members. Committee: Dr. Bloss, Dr. G. D. Jeffers, and Dr. Pettit, of Weston. The meeting then adjourned in honor of the deceased members of the Association.

Officers of the West Virginia State Medical Association elected at the Beckley meeting, June 12-14, 1923, for the year 1924:

President—Dr. Robert A. Ashworth, Moundsville.

First Vice President—Dr. Charles S. Smith, Beckley.

Second Vice President—Dr. R. H. Dunn, South Charleston.

Third Vice President—Dr. S. B. Lawson, Logan.

Secretary—Dr. D. A. MacGregor, Wheeling.

Treasurer—Dr. Hugh G. Nicholson, Charleston.

Editor of the Journal—Dr. J. R. Bloss, Huntington.

Delegate to A. M. A.—Dr. H. P. Linsz, Wheeling; Alternate—Dr. A. P. Butt, Elkins.

Councilors — First District: Dr. Charles G. Morgan, Moundsville, elected; Second District: Election deferred, Dr. J. C. Irons, Dartmoor, holds over; Third District: Election deferred, Dr. C. R. Ogden, Clarksburg, holds over; Fourth District:

Dr. G. D. Jeffers, elected; Fifth District: Dr. Harry G. Steele, Bluefield, elected; Sixth District: Dr. C. A. Ray, Charleston, elected.

Place of next meeting is Wheeling, W. Va.

REPORT OF YOUR SCIENTIFIC COMMITTEE

Your Scientific Committee, consisting of the President and Secretary who were active and the Secretary of the Surgical Section who was inactive, begs leave to submit the following report. Wet met in Morgantown late in November with Secretary Smith and Dr. J. E. Coleman of the Raleigh County Society. The Raleigh representatives asked for 24 or 27 papers at most. In January the Raleigh Society thru its Secretary and Dr. J. H. McCullouch gave us the names of fourteen men that we invited and suggested a few others whom we did not invite, for if all had accepted who had been invited up to this time our program would have been full. The following invited guests could not accept: Crile, of Cleveland, J. W. Murphy, of Cincinnati, W. McKim Marriott, of St. Louis, Martin Rehfuss, of Philadelphia, George E. de Schweinitz, of Philadelphia, L. Emmett Holt, of New York, Charles G. Kerley, of New York, John Ruhrah, of Baltimore, Alfred Stengle, of Philadelphia, J. Whitbridge Williams, of Baltimore, and Irvin Abell, of Louisville. It was hard to get distinguished guests on the medical section and very easy to get them for the surgical section, while it was easy to get members for medical papers and hard to get them for the surgical section. Usually it is the other way with the state men. We met in Moundsville on January the 20th and agreed on a full program. We gave the invited essayists till March 1st to send in the subject of their papers, but many of them waited till the time was up and then did not accept.

In the preparation of the program as a rule we tried to get new men but many of the ones we tried to get were too timid to accept. We asked seven component societies to elect their essayists. Last year half of the counties were invited to elect a representative for the state program. When many of the essayists did not respond, we asked six of our able men of the state who had formerly given papers to appear upon the program, but they refused for various reasons, one of which was they had appeared too often. By the time we had to go to print we found that the papers we had for the program could be better arranged in one continuous session than in sections as we had agreed. We arranged the program so both physicians and surgeons would come for the first session and stay till the last paper was read. In one case three fellows were invited from one society and five others asked to be put on. With a total of twenty-seven papers we thought it best not to have eight on from one society.

We believe that we have a most excellent program to offer you. We certainly put in a lot of time on it. The President is always anxious to have the best program it is possible to get up when he presides and your Secretary was especially anxious as we were to meet in his old home county. The A. M. A. meeting in San Francisco, the Shriners' meeting in Washington, the B. & O. Surgeons' meeting in Washington, the

graduation exercises of many of the medical colleges, the inaccessibility of Beckley as some thought, made the program more difficult. We have no criticism to offer any one but wish to thank Dr. J. H. McCulloch, President of the Surgical Section, Dr. Charles S. Smith, Dr. J. E. Coleman, and the Raleigh County Society for the suggestions as to the make-up of the program.

Respectfully submitted,
JOHN N. SIMPSON,
ROBERT A. ASHWORTH,
President,
Secretary.

TO THE PRESIDENT AND HOUSE OF DELEGATES OF THE WEST VIRGINIA MEDICAL ASSOCIATION

Your Committee on Legislation and Public Policy desires to submit the following report:

Despite our efforts during the last session of the Legislature, "House Bill No. 116," in relation to the regulation of osteopathy passed both Houses and became a law without any opposition on either the floor of the House or the Senate. We have no criticism to make of the physician members of the House, and we are of the opinion that they could not have accomplished anything more, owing to the fact that the policy was to trade anything from a capital site to grandmother's spectacles. We desire to file, as a part of this report, a copy of the Bill and a copy of the Journal of the House of Delegates of Monday, March 26, 1923, which, on pages 16 and 17, gives the names of each Delegate and how they voted on its third reading and passage.

House Bill No. 221—a bill to create and establish a State Board of Chiropractic Examiners, was introduced by Mr. Neal, of Cabell County and referred to the Committee on Judiciary. We made an effort to have it sent to the Committee on Medicine and Sanitation, but failed. After several hearings, in which Mr. Geo. I. Neal, an attorney of Huntington, and an uncle of Delegate Neal, took an active part as an acknowledged paid attorney of the Chiropractors, and, as we have been reliably informed, was to receive $5000.00 for his efforts and $10,000.00 if it passed, they reported it back without recommendation and it passed the House 48 to 42. On pages 36 and 37 of the House Journal for April 5, 1923, which we file, is found record of members voting.

The same bill, as Senate Bill No. 145, was introduced by Senator Darnall from Cabell County, a close friend of Mr. Neal. The real fight was made in the Senate and it looked for a time that we were doomed for defeat. But after many hearings and continuances before the Committee on Medicine and Sanitation, it came to a vote in the Senate and lost by 17 to 10. Pages 11 and 12 of Senate Journal for April 19, 1923, shows how the Senators voted.

Your Committee must apologize for not having done much else during the session for the defeat of this vicious legislation required most of our efforts and constant attention. Much credit is due to the doctors over the State, who flooded the Senate with telegrams before the bill was up for passage. Of our local physicians personally appearing be the committees at various times were Drs. Hunter, Leech, MacQueen, Henshaw, Black, Ireland,

Gressinger and Hall, of Wheeling. This association, and physicians throughout the State, will be under everlasting obligations to Sen. Clyde B. Johnson of Kanawha County for his unceasing efforts on our behalf and his masterful argument on the floor of the Senate, which, in reality, turned the tide for us, and we, who were in close touch with him and know what he did, feel that if he should ever ask a favor the medical profession of West Virginia should stand as one man for him.

Before the next meeting of the association another campaign will be on for State and County offices, and it is high time the doctors in West Virginia were informing themselves as to "who is who in politics," and how they stand on questions affecting our profession. If we would obtain results, let us start now to furnish information and advise that the new committee on all questions likely to come up before the next legislature.

JOHN N. SIMPSON,
President
ROBT. A. ASHWORTH,
C. H. RAY,
Secretary.

SECRETARY'S REPORT

Fifty-six years ago God-fearing physicians of northern West Virginia formed the West Virginia Medical Society with prophetic foresight as to the needs of the public and the profession, with an ambition to serve mankind and a vision of doing a distinct service for future generations; declaring that their purpose was "to elevate the standard of medicine and surgery and to render quackery odious." These founders expressed the hope that future generations would look on their efforts with approval.

We, the present members of the Association, the heirs of these distinguished men, meeting in a new field in a southern county, lift our voices in gratitude and praise to them for their noble work and promise them under God's direction not to be false to their ideals or to our trust. We believe that the success of these men was due to their trust in God and the practice of fighting disease and sin like the Great Physician whom they served. We point with pride to the increase in knowledge during these years in the practice of medicine and surgery, express our regret for the lost opportunities to fight sin, and resolve to fight quackery of all kinds. It is a great satisfaction and comfort to us now that the present members of the West Virginia State Medical Association went on record long before prohibition was adopted in this state declaring that whiskey and beer were not necessary in the practice of medicine and that the Association was in favor of prohibition. May we express the hope that in fifty years from now the physician and public will look on our work in fighting this evil and the Chiropractic fakers with approval.

Beckley is the fifteenth city and Raleigh County is the fifteenth component society to entertain the Association. We have also met at White Sulphur, Berkeley, and Webster Springs. This is the second time that our Society has been entertained farther south than Huntington and Charleston. There are five or six other cities in southern West Virginia that could do credit to themselves in entertaining the Association. In 1914 our Annual

Meeting was held in Bluefield. It is a good thing for the Association for us to meet the members in a new section of the state, bring words of good cheer and fellowship from the sister societies, leave new ideas about medicine and surgery and a word of encouragement for them to go forward in society work with renewed energy and enthusiasm. We hope that our coming will be profitable to the Raleigh Association, and we know from the painstaking preparations you have made for our entertainment that it will be a pleasure to you, and an individual pleasure to us.

In 1922 our Association entered upon an era of unprecedented growth. We had the largest increase in membership of any year since the Association was organized. In 1920 we had 973 members, in 1921 we had 1012 members, while in 1922 we had 1073, an increase of 61 members. This is better than five new members each month. Our gain in membership during the past two years is due to the following counties: Kanawha gained 33, Ohio 13, Webster-Nicholas 13, Marion 12, Hancock 9, Mercer 8, Monongalia 7, and Preston 5. This gives us a total gain of 100 members in these eight counties. We are especially happy that two of our weaker Component Societies, Webster-Nicholas and Hancock, were reorganized. We wish to extend these two societies a helpful hand and bid them to keep step with us down through the ages, seeking knowledge, spreading brotherly love among physicians, and giving greater help to all suffering mankind.

Two years ago Councillor Morgan and I visited Tyler County for the purpose of helping them reorganize. This meeting was well attended. Some paid dues early in the year, but they were not turned over to the State Secretary till late in the fall. It would seem by this negligence that they elected the wrong man as county secretary. Last year and so far this year, the members of this society have been paying dues direct to me. The councilors of this district should visit this society and try to get them to function or give up their charter and join the Little Kanawha and Ohio Valley Society or the Marshall County Society. The Greenbrier Valley Society needs assistance from the State Association. There are sixty physicians in Greenbrier, Monroe, and Pocahontas Counties with twenty-one good members in this Component Society, but they are so scattered that they do not meet frequently or function properly. I believe there are more physicians in this bailiwick who should be brought into the Association. I wish to call your attention to Ohio County having a greater per cent of its physicians in the State Association than have the other large counties of Cabell, Kanawha, Harrison, and Wood. Ohio has 102 physicians and 98 members with no surrounding county to draw from. Kanawha has 160 physicians and only 131 members with Boone, Lincoln, Putnam, Jackson, Roane, and Clay surrounding it and with no society in any one of them. Cabell has 103 physicians and only 85 members with Wayne, Lincoln, Putnam, and Mason surrounding it and with no society in any one of them. Wood County has 63 physicians with 52 members in the Little Kanawha and Ohia Valley Society and the counties of Jackson, part of Roane, Wirt,

Calhoun, and Pleasants to draw from. Harrison County has 98 physicians, 74 of whom are members. I mention these counties not for the purpose of criticism but to show you where there are many physicians who would make good members. In and surrounding Kanawha, Cabell, and Wood are two hundred and five physicians who are not members of the Association, or one-third of the physicians of the whole state who are not members.

We regret to report that we lost 6 members in McDowell, 8 in the Eastern Panhandle, 4 in the Little Kanawha and Ohio Valley, and 2 in Upshur, or a loss of 20 in these four counties. In all the counties we gained 121 new members. Each secretary and each councilor should see to it that no Component Society loses any members except by death. I long to see the day when each councilor visits the counties in his district at least once a year as the constitution provides. There is no reason why our societies should not be more friendly and neighborly. It will create much interest and intercomponent society friendship for a councilor to visit societies as a representative in the name of the Association. The President should go in person or send one of the Vice Presidents to every Component Society in the state at least once a year and in the words of the constitution, "assist the councilors in building up the county societies and in making their work more practicable and useful." The Vice Presidents should be well scattered over the state with this end in view. I often think the Component Societies make a mistake by not asking the President to visit them. Some of our past Presidents have been too timid about notifying a society that he would like to visit it. If a President or a Vice President could not visit a society in an official way, he could ask an Ex-President to represent him, sending a message of good cheer, encouragement and fellowship. We are all grieved when we lose a member and our State Association is hurt to that extent. The time has come when we must have active and strong Component Societies and a militant aggressive State Association which functions well in legislative matters.

In January and February, 1922, I could not spend the time with the Secretary's work that I did in 1921 on the account of the sickness and death of my father-in-law. During the last six years the Secretary's work has been hard to do on account of the distressful epidemics of flu and has been a financial loss to the two Secretaries doing the work. In March letters were sent to the Secretaries of the different Component Societies asking for a full paid-up membership by April 1st. Blanks for the annual report were also sent out. Before our State meeting letters were again sent to the Component Societies which had many delinquent members, asking that they keep everlastingly after their members till all had paid dues before the State meeting. Raleigh, Mercer, Doddridge, Taylor, Preston, and Ohio responded with a full paid-up membership. In June more than two hundred letters were sent to the individual delinquent members. In October letters were sent to the few unpaid members and to the secretaries asking for one more supreme effort to get all within the fold before the close of the year. Fifty-five letters were written asking for age, college, year of gradu-

ation and date of state license, and for information about our new members for our records. The day we received the dues of the 1073 members certificates were issued and the date of payment was stamped on county list and alphabetical list. We kept up our custom of sending in lists of names every two weeks to the West Virginia Medical Journal, the American Medical Association, and our State Treasurer. No money collected by our office is spent by us, but all money is turned over to Treasurer Nicholson twice each month. We collected and turned over $5240 in dues last year. I am glad that the increase in dues very nearly pays my salary. The numerous inquiries from the A. M. A. asking if certain members were in good standing in our State Association were answered promptly. Every year between five and six hundred members have not paid dues by April 1st as our constitution provides and they are held as suspended "until such requirements have been met." This neglect to pay dues causes your County and State Secretaries endless worry and work.

The Death Angel has again visited us and called Drs. Virginia McCune Rossa, of Martinsburg; L. D. McCutcheon, of Richwood; G. R. Burgess, of Wayne; S. E. Bailey and A. H. Kunst, of Parkersburg; Martin R. Casey and George M. Hamilton, of Weston; J. H. Rowsey and Robert Hall Pepper, of Huntington; and W. W. Tompkins, of Charleston. If there are others, we wish you would give us their names.

When the Chiropractic Bill came up before the legislature of 1923, this office undertook through the Component Societies to make an organized fight against it. We ask the Component Societies to pass resolutions against the bill and for the individual members to see their legislators and tell them the status of the Chiros. More than half of the Component Societies passed resolutions against the bill and many of the members had personal conversations with, wrote letters and sent telegrams to their Senators and members of the House of Delegates. This work required one hundred and forty letters and six days' work. I was glad to pay the expense of one brother physician to see a State Senator. Ohio County sent a representative to Charleston. We owe a debt of gratitude to all the physicians of the legislature; Hon. E. F. Moore, minority leader of the House; Hon. M. Z. White, State Senator from Williamson; and H. C. Ogden for a very able editorial in the Wheeling Intelligencer. Our legislature will continue with greater avidity to concern itself with the problems of health and the work of physicians. We must foster a closer medical contact with the public and educate them with the methods we use in the prevention, eradication and treatment of disease and about the way quacks of this age impose upon them.

So far this year nearly 1000 members have paid dues. One thousand four hundred programs were printed. One thousand two hundred and twenty-one were mailed out. Three hundred badges were ordered with the map of the state and the state flower engraved upon them.

I wish to thank the officers, the Editor of the Journal, and especially the secretaries for their uniform courtesy and help. We could not

exist without the untiring efforts of our County Secretaries. All praise and honor to them.

ROBERT A. ASHWORTH,
Secretary.

TREASURER'S REPORT

June 9, 1923.

To the House of Delegates of the West Virginia State Medical Association.

Gentlemen:

Since the last annual meeting nearly thirteen months ago there has been collected for all purposes from members of the Association the amount of $4893.50. Of this amount $900.00 went into the Defense Fund and $964.00 into the Indigent Fund; leaving $3029.50 for general purposes. For general purposes during this same period there was expended $3530.48 as enumerated in the following report. In other words we have expended during this time $600.98 more than we have collected, or about 50c per member. Fortunately we had a cash balance in the Treasury to take care of this, and at this time still have enough in the Treasury to take care of this deficiency in like proportion for the next five years. We are, though, confronted with the fact that eventually we will have to increase our dues.

You will also notice that from the Medical Defense Fund we have paid out $2452.96, or $1552.96 more than the amount collected. This after the total amount allowed in any suit being limited to $300.00 shows we are rapidly cutting down our reserve in this fund. Our balance at this time is $5085.13 as against $6011.79 in 1922.

The Indigent Fund however is growing, showing now $4288.00 as against $3324.00 last year.

This gives us a grand total of $12,716.60 in the Treasury, the larger proportion of which is out at interest subject to call, but secured by city real estate.

Respectfully submitted,
HUGH G. NICHOLSON,
Treasurer.

The following table shows receipts and disbursements for the past year as reported by Dr. Hugh G. Nicholson, Treasurer.

1922	Receipts	Disbursements
May 13, Balance in General Fund	$3,844.45	
May 13, '22, to May 17, '23, Cash from R. A. Ashworth	4,452.50	
June 5, 1923, Cash from R. A. Ashworth	441.00	
May 15, '22, By check R. A. Ashworth, Postage, etc.		$ 24.61
May 15, '22, By check, J. N. Simpson, Special Fund		100.00
May 16, By check, The Lilly Co., Badges		40.68
May 19, By check, W. J. Ward & Co		16.50
May 26, By check, The Moundsville Echo, Prtg.		72.00
June 1, By check, Harry McKnight, printing		7.75
July 18, By check, J. R. Bloss, salary		500.00
Aug. 18, By check, Mary Robinson, stenog		173.45
Sept. 8, By check, Harry Haight, printing		2.00
Sept. 9, By check, J. N. Simpson, Stud. fund		50.00
Oct. 10, By check, Patterson, Belle & Crane Co.		10.00
Dec. 18, By check, R. A. Ashworth, postage		13.46

Jan. 5, 1923, By check, J. R. Bloss, salary		500.00
March 19, By check, Work & Hope, printing		2.00
March 20, By check, Harry McKnight, printing		5.58
April 21, By check, R. A. Ashworth, printing		20.20
April 25, By check, The Moundsville Echo, Prtg.		43.35
April 25, By check, W. Va. State Med. Journal		500.00
April 25, By check, Eugenia Whitehurst, stenog.		20.00
May 19, By check, R. A. Ashworth, salary		500.00
June 5, By check, J. R. Bloss, salary		750.00
June 5, By check, The W. J. Ward Co., Pres. pin		16.50
June 5, By check, Bastian Bros. Co., badges		62.40
June 6, By check, H. G. Nicholson, salary		100.00
June 8, By check, amount to Medical Defense Fund		900.00
June 8, By check, amount to Indigent Fund		964.00
June 8, By check, Balance in General Fund		3,343.47
	$8,737.95	$8,737.95

MEDICAL DEFENSE FUND

May 13, 1922, Balance in Fund	$6,638.09	
May 12, 1923, Amt. from General Fund	815.00	
June 5, Amt. from General Fund	85.00	
May 19, 1922, By check, H. P. Linsz, expense		$ 108.96
May 29, By check, C. S. Huffman		200.00
May 29, By check, W. C. Etzler		589.00
May 29, By check, A. A. Shawkey		15.50
May 29, By check, H. P. Whitworth		100.00
May 29, By check, Panye, Monor & Bouchelle		100.00
May 29, By check, Morland & Guy		312.50
May 29, By check, Chas. Bagley Jr.		77.00
Oct. 19, By check, J. W. Lyons		50.00
Feb. 2, 1923, By check, E. A. Hill		300.00
March 19, By check, J. B. Clinton		300.00
March 19, By check, O. B. Bobbitt		300.00
June 9, Balance in fund		5,085.13
	$7,538.09	$7,538.09

INDIGENT FUND

May 13, 1922, Balance in Fund	$3,324.00	
June 9, 1923, Amt. from General Fund	964.00	
June 9, 1923, Balance in Fund		4,288.00
	$4.288.00	$4.288.00

EDITOR'S REPORT

Mr. Chairman and Members of the Council of the West Virginia State Medical Association:

The past year our Journal almost paid for itself from the receipts for advertising.

As you will remember I stated to you in my report last year that we began the January issue with a balance in the Journal's bank account of $10.42, as is shown in the financial statement herewith attached. A check was received from Treasurer Nicholson for $500.00. There was a refund of $100.00 due the Editor for advance made to cover check made for the last issue of 1921. This was not paid to the

Editor until February 24th, as is shown by check No. 106.

It was stated to you that a new contract had been entered into with the Gentry Bros. Printing Company. As you know we had a great deal of difficulty in getting caught up on the schedule of issues. At last this was accomplished, and we are now going to press on time.

The financial statement condensed is as follows:

Receipts—		
Balance	$ 510.42	
Received from advertising, subscriptions, etc.	2,311.78	
Giving a total of		$2,822.20
Expenditures—		
Printing of the Journal	$2,530.80	
Postage	65.97	
Office Supplies	26.95	
Refunds	101.80	
Binding of Journal for State Sec.	3.75	
Making a total of		$2,729.27
Leaving us a balance of		$ 92.93

As you will see from the bank balance sheet of December 31st, 1922. I trust that this is satisfactory.

Your Editor felt that the time had come for us to increase the size of the Journal. There were two ways to do this, one to increase the size of the pages, the other to increase the number of them. Since the contracts with the advertisers were for a 5x8-inch page, and they were sending cuts, copy, etc., on this basis, it seemed best to increase the number of pages. Bids were asked for, and finally the contract for twelve (12) issues for 1923 was entered into with the Gentry Bros. Printing Company of Huntington, W. Va., at the rate of $285.00 per issue for printing and binding 1160 copies per issue, of fifty-six (56) pages of reading matter, and twenty (20) pages of advertising, including the four (4) cover pages, the Journal to pay the postage additional.

This has as you see increased the cost of the Journal per issue some $75.00 over the contract price of 1922. You will note, however, that the reading pages have been increased forty percent (40%) and the advertising pages twenty-five per cent (25%), and each issue from 1140 to 1160 copies.

In the past year your Editor has not had to call upon the Treasurer for all of the Journal's funds. Each year there has been a balance. This has increased and has been held by the Treasurer during my incumbency. During the year 1923 it will be necessary to draw upon the reserve to meet the increased cost. I trust that this movement to make our Journal larger and better meets with your approval.

There are a few recommendations I would beg your permission to present to you.

First, I would ask that you permit me to publish a short volume of the Journal. That is, one of the six issues from July to December, 1923. My reason for this is that in this way we may have the year of issue of a volume corresponding to the fiscal year. Then the Editor of future years may complete each volume during his incumbency.

All thinking men in the State Association must realize the supreme

need of our organization being a more closely knit body, one with a definite aim, and all activities planned far more diplomatically and strategically than in the past. In the past few months this has been sorely needed, and we can no longer be as ostriches, hiding our heads in the sand. It seems to me, and I have given this very serious thought, that the time has come for us to employ a full-time executive secretary.

By preference, in my opinion, he should not be a physician, but a man with administrative, executive and organizing ability. He should be the business manager of the Journal, and at least the Secretary of the State Association as far as the very voluminous correspondence of it is concerned. He should not be the treasurer.

We cannot long expect to go on as in the past, as a body of scientific men refusing to meet modern conditions which present themselves for solution. By this I do not mean matters of a professional character, but those relating to our duties as citizens. That is, matters and questions of public policy and legislation affecting all of the people of the State, and not the physicians alone. We are not selfish; we are not fighting for our lives, yet we are so accused when we try to fight for the welfare of our fellow citizens.

The last session of the Legislature showed our lack of preparation. Had it not been for the personal efforts of a few men who knew when and how to act at the very last minute, some undesirable statutes would have been written into our State laws. We cannot but know that this same question, together with health insurance, and all manner of quixotic and chimerical plans will come up before us in the future. As trained and thinking and unselfish men we must face our responsibilities to the citizens of West Virginia.

It is too much to ask, or expect, of a small group of our members that they try to do the work of the whole group of physicians. It is not fair for them to fight all of our battles. Then again, be a physician ever so prominent and above criticism personally, he cannot be prepared on all of these points to go before the law making body of our State Government with definite plans and with all information relating to the same before him.

Several of the other States have adopted this plan in their organizations, particularly illuminating has been the result in the organization of our sister State of Ohio. Of course their membership is far larger than ours, and they have a far more elaborate organization than we could hope for at first.

The dues paid into the Treasury of the State Association are certainly minimal. To accomplish the highest realization it would be necessary for us to increase our State dues. I cannot understand how any man could wish or expect to secure the greatest benefit from his membership of the State Medical Association with such small dues as we now have.

Various trade unions have an admission fee ranging from $25.00 to $100.00, or more. In addition to this their members are compelled to pay dues ranging from $1.00 to $3.00 or more per month. If these organizations find that they can

only secure the fruits of organization by such charges as these, how can we as physicians expect to reap all of the benefits possible and be a powerful organization on a niggardly $5.00 per year.

The three days of the Annual Session are entirely too short to formulate any plan for bringing this matter about at this session of the Association. The seriousness of the situation, and the absolute necessity for some action is so great that it seems to me necessary for action to be taken by your body, which will open the way for work upon a plan.

I crave your pardon for going into this matter, which really does not relate to the affairs of the Editor. My sole reason is that I have the welfare of the medical profession at heart, and it is now that we must show our public spirit and our unselfishness. Please consider that my interest as a physician and as a citizen of West Virginia is my sole reason for so earnestly insisting upon a course of procedure of this kind.

Balance as of December 31st, 1921.....$ 10.42
Received by check from Treas. State Ass'n..... 500.00
Received from advertisers, etc..... 2,311.78

$2,822.20

Check No.	1922 Date		Printing Journal	Postage	Office Supplies	Refunds	Bndg. Jr. for Secy.	
106	2/24	To Editor				$100.00		
107	3/13	Jan. issue	$ 210.00	$3.23				
108	3/13	.....			$13.50			
109	4/17	Feb. issue	210.00	3.33				
110	4/18	.....		5.00				
111	5/ 8	.....			3.50			
112	5/ 8	To F. Co...				1.80		
113	5/11	Mar. issue	205.80	4.27				
114	5/12	Apr. issue	219.75	5.16				
115	6/12	.....			2.25			
116	7/ 5	May issue	210.00	3.85				
117	7/24	June issue	210.00	3.87				
118	8/ 1	.....		5.00				
119	8/21	July issue	210.00	3.90				
120	9/ 2	Aug. issue	210.00	4.35				
121	9/ 2	.....			.70			
122	9/25	Sept. issue	210.00	4.58				
123	10/ 4	.....			7.00			
124	10/ 4	.....		5.00				
125	10/ 4	Oct. issue	212.50	4.79				
126	12/ 1	Nov. issue	210.00	4.83				
127	12/ 1	Dec. issue	212.75	4.81				
128	12/ 1	.....					$3.75	
			$2,530.80	$65.97	$26.95	$101.80	$3.75	$2,729.27

Balance as of December 31st, 1922..... $ 92.93

Audited statements with cancelled checks and found correct.

CHAS. G. MORGAN, M. D.
J. HOWARD ANDERSON, M. D.

REPORT OF COMMITTEE ON PRESIDENT'S ADDRESS

We, the Committee, appointed by Vice President Vest for the consideration of President Simpson's address, wish to submit the following report and recommendations:

First, We herewith express our thanks and appreciation to President Simpson for his splendid historical review of the inception and development of the Science and Art of Medicine. And we suggest that greater emphasis be laid upon the teaching of Medical History in our State University.

Second, We heartily endorse his recommendations relative to the systemmatic instruction of interns by the staff physicians of our hospitals.

Third, Furthermore, we heartily endorse the recommendation made by President Simpson that the theoretical and didactic instructions in the first and second years in the medical school be correlated with suitable clinical training and experience, and to this end we recommend that the West Virginia State Medical Association go on record as heartily in favor of the establishment of a Class A Hospital in connection with the medical department of our West Virginia State University.

Respectfully submitted,

J. HOWARD ANDERSON,
Chairman
D. A. MacGREGOR,
J. ROSS HUNTER,
Committee.

REPORT OF COMMITTEE ON AUTOMOBILE INSURANCE

To the House of Delegates:
Gentlemen:

Your Committee on Automobile Insurance herewith submits a copy of the statement of the Lumbermen's Mutual Casualty Company setting forth the aims and resources of this organization. This matter we have gone over in detail with Mr. G. H. Winfrey, secretary of the Medical Society of Virginia, and we do hereby recommend the plan as feasible and worthy of the consideration of the Association. We further recommend to the members of the State Association that they purchase this insurance in preference to that in other companies. Circular attached.

Respectfully submitted,
H. G. STEELE, Chairman
G. A. MacQUEEN
W. E. VEST
Committee.

The purpose of this division is to furnish public liability, property damage, collision, fire, and theft insurance to physicians in state organizations affiliated with the American Medical Association, at rates based on the losses of physicians. A survey made by the Secretary of the Medical Society of Virginia has demonstrated the fact that physicians are more careful drivers than the general public and that they are therefore entitled to materially reduced rates.

To secure this result our company offers to write any or all of this insurance for the persons indicated above at regular rates, guaranteeing to return to them the same divi-

dends regularly returned to our policyholders, which has never been less than 25% and for the past ten years has averaged nearly 30%.

In addition, it will, as soon as 2000 policies are issued to the physicians, segregate the physicians into a class and will return a dividend based exclusively on the losses of physicians and prorated expenses.

For example. If the company's expenses consume 25% of the premiums paid for insurance and the losses of physicians consume 25% there will be return to them—in cash or as a credit on renewal policies, the second year—a dividend of 50%. The net result of this arrangement should mean after the first year a reduction of fifty per cent in the cost of your insurance. We estimate that this saving will average from $15.00 to $20.00 per year for each physician who goes into the arrangement.

Endorsement of this proposition has come from the Medical Society of Virginia and a large number of physicians throughout America. It offers all the advantages of a purely mutual company for physicians with the added advantages of experienced management, resources exceeding two million dollars, and experienced adjusters throughout the United States.

Placing your insurance in this company means not only a saving in the cost of your own policy but it also means assistance in reducing the cost of insurance for thousands of other physicians. Even if this item of expense is not burdensome to you, it is a heavy item to the majority and they want your help in reducing it.

The relatively enormous profit in your automobile liability insurance premiums makes it easy for reckless drivers to purchase financial immunity for the results of their carelessness at relatively small cost. Removing your support from these people will assist in insuring more careful driving.

Your insurance business then becomes a question as to whether you will encourage by your contributions the careless public to continue in its recklessness or whether you will assist this preferred class in its efforts to save life and reduce costs. You can accomplish your purpose by concentrating your business in this company—not by distributing it among the companies of America.

Alfred M. Best, the world's authority on insurance companies, says this of our company: "The business of the company so far has been profitable. The losses and expenses have been moderate. The company is under competent management."

Our rates the first year are exactly the same as those quoted by the stock companies.

For additional information as to rates, coverage, or other matters write us, giving name of car(s), year of model and type. — Physicians' Division—Lumbermen's Mutual Casualty Company, 104½ W. Grace St., Richmond, Va.

REPORT OF MEMORIAL COMMITTEE

Whereas, it has pleased the Supreme Ruler of the Universe in his Infinite Wisdom to remove from our midst since last we met, the follow-

ing Members of the West Virginia State Medical Association:

Dr. M. Virginia McCune Rossa, Martinsburg
Dr. S. D. Hatfield, Kokomo, Ind.
Dr. J. H. Rowsey, Huntington
Dr. Robert Hall Pepper, Huntington
Dr. O. L. Baker, Ronceverte
Dr. L. D. McCutcheon Richwood
Dr. G. R. Burgess, Wayne
Dr. S. E. Bailey, Parkersburg
Dr. A. H. Kunst, Parkersburg
Dr. Martin R. Casey, Weston
Dr. George M. Hamilton, Weston
Dr. W. W. Tompkins Charleston
Dr. C. E. White Buckhannon

And, Whereas, we feel keenly the loss of these our co-workers, and realize that ere long we, too, shall leave terrestial scenes of activity; it is but fitting that we pause to render homage to our departed fellow laborers, and bear testimony to their worth in this life, and especially, their value in mitigating human suffering in their chosen field of endeavor.

Therefore, be it resolved, that we the members of the West Virginia State Medical Association do bow in humble submission to the Will of Divine Providence.

That we extend our heart-felt sympathy to the bereaved families of these departed, and that a copy of these Resolutions be spread upon the minutes of this meeting, and be published in the West Virginia Medical Journal.

Respectfully submitted,

JAS. R. BLOSS, Chairman
WALTER E. VEST
J. G. PETTIT

THE TREATMENT OF VOMITING

Vomiting is one of the protective reflexes, according to Bernard Fantus, Chicago, (Journal A. M. A., July 7, 1923). Is there irritating material in the stomach? should be the first question in the treatment of vomiting. Emesis should be encouraged by copious drinking of lukewarm water, unless a stomach tube is available. When offending food is vomited, the emesis requires no direct treatment. All that is necessary is to give the stomach rest for a few hours. Fantus warns against falling into the facile error, so commonly committed by the laity, of incriminating whatever food has just previously been eaten, when, in reality, the vomiting frequently is symptomatic of some disease like cholelithiasis or appendicitis. The lusty baby often overdistends its little stomach by taking more milk than it can hold, and then it regurgitates the excess. Better for it to do this than to suffer from indigestion due to excessive feeding. The vomiting so commonly occurring at the onset of febrile diseases, such as scarlet fever or pneumonia may have a beneficial tendency. If the vomiting continues with fever and there is abdominal pain, tenderness, and rigidity from

the onset, the presence of an acute surgical condition of the abdomen, e. g., of appendicitis, should be suspected. Continuance of painless vomiting in a feverish child should lead to inquiry for meningitis, uremia or acidosis. Abdominal pain and tenderness may develop from muscular strain in any patient vomiting excessively, but this occurs only after the vomiting has lasted several days and when there is a feeling of soreness, especially at the points of muscular insertions. In quite a number of cases, emesis is merely accidental or incidental, bearing no relation to the condition of the stomach or to the functional capacity of the alimentary tract. In such conditions, it is wise, unless the vomiting is excessive, to ignore it as far as the therapeutic program is concerned. The vomiting of seasickness does not require abstention from food and drink. The patient should eat sparingly of simple foods, such as gruel, dry toast, plain biscuit or chicken; he should avoid distention of the stomach by the consumption of liquids and fruits; and, as soon as a feeling of nausea develops, at once go to his berth and keep his head down. Should the patient have to keep up and about, or not be relieved by the recumbent posture, atropin treatment, such as advocated by Girard, may be tried. It consists of the hypodermic injection of 0.5 mg. of atropin sulphate, possibly combined with 1 mg. of strychnin sulphate, repeated twice at hourly intervals if required. The ordinary vomiting of pregnancy, as distinguished from hyperemesis gravidarium, is a similar condition. One should encourage the patient to go on eating bravely, even if the food is vomited shortly after, because some of it will stay down and sustain the body, surely more than if no food were taken. It is well not to let the patient raise her head from the pillow in the morning without previously putting something into her stomach, such as a cup of hot coffee. Like many other blind reflexes, emesis is frequently useless and excessive, as when it is maintained by abnormal irritability of the vomiting center or by a peripheral irritation that it cannot remove; and it threatens by increase of the excitability of the vomiting center from starvation acidosis to establish a vicious circle. There are two fundamentally different modes of attack applicable to the treatment of any case of vomiting; to remove the irritation and to lessen the irritability; and either may be peripheral or centric. The various modes of attacks are, on the whole, in inverse proportion of importance to one another in accordance with the underlying cause; but, in many cases of obstinate vomiting, they may usefully reinforce one another. Gastric rest is the single most important means of lessening the stream of afferent stimuli affecting the vomiting center in almost any variety of excessive vomiting. Such gastric rest treatment practiced secondum artem should include not only the withholding of all food and drink, but also keeping the mouth and lips moist, as well as parenteral administration of fluid, antiketogenic regimen, and complete rest in the horizontal position. Teaspoonful doses of very hot or very cold water or of seltzer water may be given—but not oftener than every fifteen minutes—to keep the mouth moist, and petrolatum should be applied to the

lips to keep them from chapping or cracking. Medicine must not be permitted to interfere with the gastric rest. Local antiemetic medication is often a delusion and a snare. The administration of cathartics must likewise not interfere with the gastric rest. To relieve thirst and to antagonize starvation acidosis, which in turn tends to maintain emesis, retention enemas of sodium bicarbonate solution (2 per cent), to which glucose (5 per cent) may be added, may be employed. Hypotonic solution is preferred, as it prevents thirst better than isotonic solution. The principle underlying the determination of the quantity of the solution to be used by rectal administration is to inject the most that can be retained. The injections may be repeated every two to four hours, as long as small amounts are given; and, as the quantity is increased, the intervals may be increased also to six or eight hours. This is preferable to the rectal drip, which is generally very annoying to the patient. Once daily, an evacuant enema of the same solution is given, administered with the same technic, excepting that enough is injected to excite expulsion of the colonic contents. Every now and then, cases are encountered in which the mere giving of an enema excites emesis. In such cases, as well as in neglected cases of obstinate emesis, when dehydration of the system has occurred to a considerable extent, duodenal administration or hypodermoclysis should be resorted to. In bad cases of this kind, intravenous injection of glucose solution, and in children its intraperitoneal administration, may be of lifesaving importance. The best antacids in cases of vomiting are chalk or magnesium oxid, selection between the two being made according to whether we desire the constipating tendency of the calcium or the laxative action of the magnesium. When these are not at hand and sodium bicarbonate is available, this might be administered as an antacid, tho' it is more likely to be rejected by vomiting.

Lavage is the supreme remedy for removing irritant material from the stomach. It is absolutely indicated in poisoning unless of deep, corrosive variety. Fecal vomiting presents another absolute indication for lavage. Lavage is frequently the best measure to check bile vomiting, because we have to deal here with a vicious circle. Surgical removal of the peripheral irritation should be undertaken as soon as the diagnosis of the necessity of surgical intervention has been made. In proportion to the degree in which acidosis dominates the causation of vomiting, the administration of carbohydrates is of importance. The von Noorden oatmeal diet has, however, made a sufficient reputation for itself to deserve special consideration in this connection. Alkali may also be resorted to in this condition, though it is less likely to be successful, as it does not strike at the cause of the disorder, and practically impossible quantities may be required to neutralize the acid continually formed in metabolism. It is possible that duodenal tube administration of alkali (as described below) may be found to be the most efficient method. Certain mechanical measures may be instrumental in lessening centric excitability. Thus, lumbar puncture, and the lowering of pressure produced thereby, may be of value in those

cases of cerebral vomiting associated with excessive subdural pressure. When vomiting proves obstinate, definite results may be secured by the skilful use of antiemetics that lessen either peripheral or centric irritability. Among the sedatives that may be useful in the treatmnet of vomiting, bromids, though feeble in action, are the first to be considered because they have less undesirable side effects than other more powerful agents. A dose of 1, 2 or 4 gm, of sodium bromid may be added to the retention enemas. It is best not to exceed a concentration of 1 per cent. When the nervous element is a prominent feature in the causation of vomiting, as in the crises of locomotor ataxia or in some cases of hypremesis gravidarium, it is well to make the effect more certain by reinforcing the bromid with chloral, given in full dose so that a reliable effect can be obtained from the first. When the use of chloral is objectionable by reason of circulatory depression, the rectal administration of 0.5 gm. of barbital sodium may be resorted to instead. In serious cases in which the other remedies fail, the most efficient agent, provided no idiosncrasy exists against its use, is morphin given subcutaneously in doses of 0.01 gm. every hour or two for, at most, three doses, or else in the form of suppositories. Morphin is required chiefly in those cases of emesis accompanied by pain, provided the administration of morphin is not strongly contraindicated. Psychotherapy is of great importance in the treatment of vomiting. To the extent to which excessive gastric irritability exists, local measures for its control may be of advantage. First and foremost among such are protectants, such as the insoluble salts of bismuth. Among these, bismuth subcarbonate probably deserves preference to the subnitrate, because of the possibility of nitrate poisoning occurring from administration of the latter. Local anesthetics may be of help, especially when a focus of local irritation, such as cancer or ulcer, is responsible for the vomiting. Of these, benzocain (anesthesin) is possibly the agent of choice, as it may be safely given in doses as high as 0.50 gm., though a dose of one-tenth this amount may suffice to exert a sufficient degree of anesthetic action. As a preventive of postanesthesial vomiting, the administration of chlorbutanil (chloretone) in doses of from 0.5 to 1 gm. as a preliminary to the giving of general anesthetic may be useful, as it not only lessens local irritability, but also is of value in the production of general anesthesia. Procain or cocain hydrochlorid in doses of 0.01 gm. may also be given. It may be combined with menthol. Such agents as phenol (carbolic acid) and creosote in small doses might be considreed the local anesthetic of choice in cases of vomiting in which excessively prolonged gastric retention is responsible for fermentation. Such cases would, however, be managed more efficiently by means of lavage. Counterirritation over the epigastrium is another time honored remedy supposed to succeed when other measures fail. An antispasmodic regimen should not be overlooked in cases of obstinate emesis.

ANNOUNCEMENTS AND COMMUNICATIONS

Kansas City, Mo.
July 14, 1923.

Dr. James R. Bloss, Editor
West Virginia Medical Journal
Huntington, W. Va.

My dear Doctor:

The Committee on Maternal Welfare of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons is anxious to gather the accumulated statistical results of the efforts of the profession during the years 1921-1922, in advancing the status of obstetrics in America.

We shall greatly appreciate your cooperation in the publication of our appeal for a brief statement of the work done in the various communities of your State in welfare work both as shown in care of prospective mothers and in the technic of labor. In order to enable us to formulate our survey the information must be at hand very shortly.

Thanking you in advance for your courtesy in the behalf of the Committee I am

Very truly yours,

GEO. CLARK MOSHER,
Chairman.

An Appeal for Information on Maternal Welfare

The Committee on Maternal Welfare of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons is anxious to procure accurate information as to the progress which each State is making in the matter of Maternal Welfare in order to formulate a report for our annual meeting in Philadelphia, in September.

A preliminary programme was published in the issue of the American Journal of Obstetrics and Gynecology for June, 1923, which it is hoped may be a suggestion of an outline for National work among all organizations which have a common basic line of endeavor including Medical Societies, Departments of Health, and Commissions of Social Workers.

We shall be under many obligations if you will be kind enough to send at your early convenience a brief synopsis of the results accomplished in your State and most important if possible a contrast of the record of the clinics or regions where patients have been privileged to have pre-natal care with the statistics of the community in general where no supervision has been afforded the prospective mothers.

These it is planned to have incorporated into the completed survey to be presented to the Association and to be published in the Annual Transactions later on.

Dr. Henry Schwarz, St. Louis; Dr. George W. Kosmak, New York City, Dr. George Clark Mosher, Chairman, Kansas City.

THE WEST VIRGINIA MEDICAL JOURNAL

JAS. R. BLOSS, M. D. - - - - - Editor

C. R. ENSLOW, M. D.
J. E. RADER, M. D. - Assistant Editors
W. E. VEST

THE JOURNAL issued on the first of each month. Entered as second class matter, January 1, 1916. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized July 24, 1919.

Subscription to members - - - $2.00 per year
Subscription to non-members - - $3.50 per year
Single Copies - - - - - - - - 35 cents

All original articles for the journal must be made to it exclusively. Communciations and items of general interest to the profession are invited from all over the state. Notices of deaths, removals from the state, changes of location, etc., are requested.

Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

CONTRIBUTIONS TYPEWRITTEN

It is much more satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—the satisfaction is great for the editor and printer.

Contract with present printer specifies all articles, communications, etc., MUST BE TYPED.

ADVERTISEMENTS

Advertising forms will go to press not later than the tenth of each month.

All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the A. M. A.

REMITTANCES

Should be made by check, draft, money order, express order or registered letter to Dr. Jas. R. Bloss, Chairman of Publication Committee, Huntington, W. Va.

Editorial Office: 804 Lincoln Place, Huntington, W. Va.

The Committee on Publication is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author or communicant shall be held entirely responsible.

PRESIDENT: Dr. John N. Simpson, Morgantown.

FIRST VICE-PRESIDENT: Dr. R. J. Wilkinson, Huntington.

SECOND VICE-PRESIDENT: Dr. Harry M. Hall, Wheeling.

THIRD VICE-PRESIDENT: Dr. W. E. Vest, Huntington.

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DELEGATE TO A. M. A. 1923-24: Jas. R. Bloss, Huntington; Alternate, M. V. Godbey, Charleston.

COUNCIL

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THE MEETING AT BECKLEY

The congratulations of the Association are certainly due the members of the Raleigh County Medical Society for giving us such a hearty welcome at the recent meeting. Possibly the accommodations for holding the general sessions were not so good as might have been secured in some of the larger cities of the State, but the members present must certainly admit that there was an over-abundance of interest and enthusiasm manifested.

We cannot but feel very much elated over the meeting as a whole. The entertainments provided certainly were appreciated by those in attendance, and while the weather conditions for the first two days of the meeting were more or less inclement, all of us accepted it in a jovial manner. Altogether it was an enthusiastic and successful meeting.

There were a few things done by the Council and the House of Delegates which should be specially called to the attention of the mem-

bers of the State Association. One of the first things which the Council proceeded to do was to pass a very emphatic resolution embodying instructions to the Editor of the State Journal that in the future all communications and addresses sent to the Journal for publication should deal purely with scientific medicine, and that any communications or addresses that were of a personal nature should not be given space in the columns of the publication, but should be returned to the author.

The Editor welcomes these instructions from the Council as on a number of occasions he has been placed in a very embarrassing position by members who had an "axe to grind," or thought they had.

Another recommendation of the Council, and one acted favorably upon by the House of Delegates was the recommendation that the annual dues of the State Organization be increased to $10.00 per year instead of $5.00 as at present. It is clearly proven that to make our organization all that it should be, and to be able to push the organization in the various counties throughout the State so that it will comprise all of the eligible physicians, requires more money than we have received in the past. This increase in dues does not become effective until 1924. Quite a number of those present favored making the amount $15.00, and some even $20.00 or $25.00 per year. It is to be hoped that the men who are members of the State Organization will awaken to the need of closer co-operation if we are to accomplish, as a body, those things which we should.

There is no question but that the time has come when the Association is of necessity compelled to employ a full time Executive Secretary. This matter is, however, one which will have to be finally decided by the House of Delegates next year. In the meantime we are endeavoring to gather all the information and data concerning executive secretaries in order that it may be placed before the Council and the House at the next annual meeting.

The papers and addresses will be published as soon as it is possible to do so, and will in so far as possible follow the order in which they were presented to the Association on the program.

It is to be hoped that the full membership will begin to plan for the journey to Wheeling next year.

HUMAN WELFARE AND MODERN MEDICINE

"The objects of this Association are to promote the science and art of medicine and the betterment of public health," is the text of Ray Lyman Wilbur's, Stanford University, Calif, (Journal A. M. A., June 30, 1923, presidential address delivered before the American Medical Association at its seventy-fourth annual session, held in San Francisco, June 25-29, 1923. First, he reviews briefly the progress of civilization and medicine. Civilization is a constantly expanding phenomenon. The history of the art and science of medicine has run more or less parallel with human advance. In general, it has reflected the mental attitude of those it served. Medicine is as old as man. Its aims have always been relief of human suffering and the release of human power from physical and mental handicaps. Without the "betterment of public health" no lasting progress can be made, since,

as living beings subject to the great biologic laws, existence can be secured only through the understanding and control of the factors that hamper or favor human welfare. The individual and his life and happiness are basic in any scheme of human welfare, and the happiness of the individual depends largely on the condition of the living vehicle which carries around the brain which records his impressions of his environment. If the height of human happiness is to be obtained, then every advantage must be taken of all that is known of health and relief from sickness and injury. Individual and collective living can be promoted as much, if not more, by carrying out the expressed objects of this Association than in any other way. Medicine in human service has almost unlimited possibilities. Its accomplishments show what is yet to come. Progress requires constant thought, planning and foresight. There is no inherent positive force making for progress aside from the expansion of knowledge and the conquering thereby of environment together with the persistent growth of so-called moral qualities, which biologically help to protect the herd. With the great material advances made in every direction, the whole practice of medicine is undergoing vast and fundamental changes. It is no longer possible to think traditionally in medicine. The pace forward is too fast. Drained swamps, septic tanks, filter beds, safe water, physical training, closed saloons, extinguished red lights, compensated injuries, pure milk, open windows, clean car floors, have brought permanent health benefits. Gasoline, good roads, the up-to-date hospital, trained nurses, modern chemistry, arsphenamin, diphtheria antitoxin, and a host of other measures have sent many methods in recent vogue in practice to join in the oblivion of the plug hat and the high phaeton. Methods have changed, but the aims have not. They still revolve around the individual relationship of a physician to a patient. The touch of sympathy and the need of personal helpfulness are just as important as ever before. It is probable that the members of the American Medical Association do the largest amount of charitable work of any voluntary organized body in the world. The voluntary association of two men, one giving and one seeking relief, is at the heart of the art of medicine. The unfeeling rules of the law must and can be carried out so that the public welfare can be protected without destroying this bond. Greatest service to the human race can be done only when we help to make possible a marked increase in positive health. Already efforts are crowned with a marked prolongation of life, particularly through the economic productive period. As a race, success is dependent on the strong and the reproduction of the strong. In the control of the human germ plasm lies man's future. Bringing science into medicine has brought a great flood of workers into the broad domains of physical health who lack full medical training. They are appreciative of much of the science of medicine, but they lack that deeper professional insight which comes from medicine as an art. Medical training, too, has been remiss in cultivating the art of medicine. The general practitioner, that real disciple, interpre-

ter and practical exponent of medical science, has been pushed aside in many parts of the country, both from within the profession and from without. Medical education differs from most other educational projects because of its wide range of services. While its primary object is and must always be the training of physicians for the general practice of medicine, it must develop also large numbers of anatomists, physiologists, biochemists, bacteriologists, pharmacologists, specialists in the fields of medicine and hospital administrations, roentgenographers, laboratory technicians, nurses, physiotherapists, social workers and public health officials. The sick human being forms the necessary center about which must be gathered the teacher, the intern, the student and the nurse. At every step the teacher has a double function. He is the teacher with all that the term implies, and the personal physician of a fellow human being. If he fails in the second, he is worse than a failure in the first. His real success as a physician depends largely on his capacity to view his patient as a social unit. He must combine treatment and prevention of disease. The physician is the middleman who delivers to an individual patient the results of all accumulated medical lore. His effectiveness is not a question of how much he knows, but how much he makes applicable to a fellow human being. There must be direct personal contact, man to man, to give the best that medicine offers. All sorts of aids may be used, but the physician alone can deliver the art of medicine to the patient. The human mind, the human will and human personality will be as important for the medical student of today when he comes into full practice as typhoid fever, smallpox and cholera have been to physicians in the past. Moral and spiritual qualities play as large a part in life as do the more physical of the biologic processes. Other topics discussed are opportunities of association; hospitals; new position of women; scientific and public advancement. Wilbur says: When every student in school receives some training in biology, the quack, the "patent medicine" cheat, the aggrandized rubber and manipulater, and the knotted string faddist will have a less fertile soil for their mushroom activities. Medicine, in its foundations and in its applications, is based on research. The most sacred heritages of medicine have come thru the transcendent genius of a comparatively few men applied to human woes. The protection and advancement of research is our greatest opportunity, but it is as important to apply the results of research as to foster it. All dealing with life is relative, and will be so until we can know more of the unknown. For the present we can only expect to get high percentage results in the application of medicine. Every time we learn a new fact, the structure of medicine becomes firmer and more dependable. Near facts must fall before facts. There can be no present finality. Dogma has no place in medicine today. Facts and not authority control.

STATE AND GENERAL NEWS

The following West Virginia physicians were registered at the recent meeting of the American Medical Association, San Francisco: Henri

P. Linsz, Delegate, Wheeling; Jas. R. Bloss, Delegate, Huntington; B. F. Harden, Wellsburg; Leo Huth, Follansbee; Frank Jerome Collison, Bluefield; William C. Kelly, Morgantown; C. F. Arnett, Clarksburg; Daniel C. Louchery, Clarksburg; Chester R. Ogden, Clarksburg, B. S. Rankin, Tunnelton.

CABELL COUNTY NEWS

Dr. Festus O. Marple, of the Hawes-Marple Hospital, eye, ear, nose and throat specialist, and Dr. J. C. Matthews, of Matthews-Bobbitt Urological Clinic, sailed on S. S. Rotterdam for Europe. They will spend the summer studying in Vienna.

Dr. W. C. Thomas, formerly House Surgeon of the Baltimore Eye and Ear Hospital, and who has been in charge of the Government Trachoma Hospital at Morristown, Tenn., and Pikeville, Kentucky, is now identified with the staff of the Hawes-Marple Hospital in Huntington.

Dr. B. L. Hume of Huntington has recently returned from an extended vacation spent in Maryland and Virginia.

The friends of Dr. A. K. Kessler will be interested in the announcement that his daughter Miss Marjorie Kessler was recently married to Mr. Louis Gates Hoyt.

Dr. and Mrs. E. E. Shaffer of Huntington are spending the summer vacation making an extended automobile trip through Northern Ohio and Canada, visiting Buckeye Lake, Niagara Falls and the Great Lakes.

Dr. E. B. Gerlach, City Health Officer of Huntington, announces the opening of the City Urological Clinic in the basement of the City Hall. This marks the beginning of a service that has long been planned and it is hoped that it will be possible to extend it to include treatment of all classes of disease among the poor. The Urological Clinic is to be in charge of Dr. R. M. Bobbitt, Dr. J. C. Matthews and Dr. Rudolph Ruedeman, who specialize in this particular branch. The Clinic will be open from one to two o'clock in the afternoons of Monday, Wednesday and Friday of each week. The physicians are giving their services to this work.

There have recently been added three internes to the staff of the Chesapeake & Ohio Hospital in Huntington: Dr. W. Carl Kapper, of Richmond, Va., and Drs. W. W. Nicholson and F. F. Helm from Louisville, Ky.

Dr. J. E. Rader of Huntington recently returned from a week's vacation spent in Richmond, Va.

Dr. J. S. Klump of Huntington has returned from a ten days' trip spent in Detroit and Cleveland.

Dr. H. P. Gerlach of West Palm Beach, Fla., the father of the present head of the Health Department of Huntington, is spending a two months vacation with his son in this city. The elder Dr. Gerlach was associated with his son in practice in Huntington until 1918, and has a very wide acquaintance in this city.

Dr. John H. Steenbergen, Huntington, has moved his office from the Day & Night Building to his recently opened private hospital at 1112 Fifth avenue in that city.

Dr. E. B. Gerlach is on a motor trip to Niagara Falls and other eastern points.

NEW AND NON-OFFICIAL REMEDIES

Insulin—An aqueous solution of an active principle from pancreas which effects sugar combustion. strength of insulin is expressed in "units," one unit being one-third of the amount required to lower the blood sugar below 0.045 per cent and cause convulsions in a rabbit weighing 2 kg. which has been previously starved for twenty-four hours. The administration of insulin to diabetic dogs and to man in severe cases of diabetes mellitus restores to the body the lost ability to oxidize carbohydrates, and glycogen is again stored in the liver. If insulin is administered at suitable intervals to a person suffering from diabetes mellitus, the blood sugar is maintained at a normal level and the urine remains free from sugar. Fat is also burned and, as a result, ketone bodies do not appear in the urine and diabetic acidosis and coma are prevented. The administration of insulin is indicated in cases of diabetes mellitus which cannot be controlled satisfactorily by dietetic treatment. Overdosage of insulin is followed by the development of serious symptoms which demand immediate treatment. Insulin is administered subcutaneously one, two or three times a day before meals, The dosage required to reduce the blood sugar to the normal level must be established for each patient by determination of the blood sugar before and after administration of insulin. In cases of coma or severe acidosis, an initial dose of 15 or 20 units of insulin may be given, followed at 3 or 4 hour intervals by smaller doses with simultaneous administration of glucose.

Insulin-Toronto—A brand of insulin. It is marketed in 5 Cc. vials containing 10 units in each Cc., and in 5 Cc. vials containing 20 units in each Cc. Conneaugh Antitoxin Laboratories of the University of Toronto, Toronto, Ontario, Canada.

Quinine Ethyl Carbonate — The quinine ester of ethyl carbonic acid. Quinine ethyl carbonate was first introduced as euquinine. It is used in place of quinine sulphate and similar soluble quinine salts when a practically tasteless quinine compound is preferred.

Quinine Ethyl Carbonate-M. C. W.—A brand of Quinine Ethyl Carbonate-N. N. R. Mallinckrodt Chemical Works, St. Louis Mo. (Jour. A. M. A., June 2, 1923, p. 1617).

Arsphenamine-Mallinckrodt — A brand of arsphenamine-N. N. R. (See New and Nonofficial Remedies, 1923, p. 46.) It is marketed in ampules containing respectively, 0.1 gm., 0.2 gm., 0.3 gm., 0.4 gm., 0.5 gm., 0.6 gm., and 1.0 gm. Mallinckrodt Chemical Works, St. Louis, Mo.

Barbital-M. C. W.—A brand of barbital-N. N. R. (See New and Nonofficial Remedies, 1923, p. 62.) Mallinckrodt Chemical Works, St. Louis, Mo.

Cinchophen-M. C. W.—A brand of cinchophen-N. N. R. (See New and Nonofficial Remedies, 1923, p. 90.) Mallinckrodt Chemical Works, St. Louis, Mo.

Mercuric Cyanide-M. C. W.—A brand of mercuric cyanide-N. N. R. (See New and Nonofficial Remedies, 1923, p. 194.) Mallinckrodt Chemical Works, St. Louis Mo. (Jour. A. M. A., June 16, 1923, p. 1775.)

Iletin (Insulin—Lilly)—A brand of insulin (See Jour. A. M. A., June 2, 1923, p. 1617). It is marketed in 5 Cc. ampules containing 10 units in each Cc. and in 5 Cc. ampules containing 20 units in each Cc. Eli Lilly & Co., Indianapolis, Ind. (Jour. A. M. A., June 23, 1923, p. 1851).

Amidopyrine—Abbott.—A brand of amidopyrine—N. N. R. (See New and Nonofficial Remedies, 1923, p. 250). It is marketed in substance and in 5 grain tablets. Abbott Laboratories, Chicago, Ill.

Epinephrin Chloride Solution—Abbott. — A solution containing epinephrine chloride, equivalent to 1 part of epinephrine in 1,000 parts of physiological solution of sodium chloride, preserved by the addition of benzoic acid and saturation with carbon dioxide. For a discussion of the actions, usage and dosage of epinephrine see New and Nonofficial Remedies, 1923, p. 112. Abbott Laboratories, Chicago, Ill. (Jour. A. M. A., June 30, 1923, p. 1910).

The following articles have been accepted by the Council on Pharmacy and Chemistry:

Abbott Laboratories—Amidopyrine—Abbott. Amidopyrine—Abbott Tablets, 5 grains. Epinephrin Chloride Solution—Abbott.

General Chemical Co.—Sofos.

Eli Lilly & Co.—Iletin (Insulin—Lilly). Iletin (Insulin—Lilly) H-10:5 Cc. Ampules. Iletin (Insulin—Lilly) H-20:5 Cc. Ampules.

Powers-Weightman-Rosengarten Co. — Sulpharsphenamine Billon. Sulpharsphenamine Billon, 0.1 Gm. Ampules. Sulpharsphenamine Billon, 0.2 Gm. Ampules. Sulpharsphenamine, 0.3 Gm. Ampules. Sulpharsphenamine, 0.4 Gm. Ampules. Sulpharsphenamine Billon, 0.5 Gm. Ampules. Sulpharsphenamine Billon, 0.6 Gm. Ampules.

PROPAGANDA FOR REFORM

Calcium Therapy in Tuberculosis. —From a review of the literature, Mayer and Wells concluded that there is no convincing clinical evidence of the value of calcium administration in tuberculosis. They believe that no deficency in blood calcium exists in tuberculous patients. From carefully controlled animal experiments these investigators conclude that calcium administration does not affect the course of tuberculosis in animals. If the use of calcium compounds in the treatment of tuberculosis is to be continued, clinical experiments of a scientific character should be conducted. At the present time there appears to be no scientific basis for the use of calcium in tuberculosis. (Jour. A. M. A., June 2, 1923, p. 1619.)

Progress and Conservatism in Therapeutics.—The Committee on Therapeutics of the Council on Pharmacy and Chemistry has published a communication calling attention to two books which physicians should have—New and Nonofficial Remedies and Useful Drugs. It is explained by the Committee that for eighteen years the Council has done its utmost to bring before the medical profession the truth concerning the new proprietary medicinal preparations which are being offered to the profession. The work and functions of the Council are discussed, and it is explained that while the Council was organized primarily to put a stop to the exploitation of proprietary medi-

cines under false claims and the use of secret preparations, its activities have broadened until its work may now be characterized as a "propaganda for the rational use of drugs." The communication concludes: "New and Nonofficial Remedies" and "Useful Drugs" together furnish information concerning all drugs, old and new, which are at present essential to, or give promise of value in, the practice of medicine. They have been compiled with a special object in view, namely, to meet the needs of the student and practitioner of today. The report is signed by C. W. Edmunds, M. D., Professor of Materia Medica and Therapeutics, University of Michigan, Ann Arbour, Mich., John Howland, M. D., Professor of Pediatrics, Johns Hopkins University, Department of Medicine, Baltimore, Md., Ernest E. Irons, M. D., Ph.D., Associate Professor of Medicine, Rush Medical College, Chicago, Ill., W. T. Longcope, A.B., M. D., Professor of Medicine, Johns Hopkins University, Department of Medicine, Baltimore, Md., G. W. McCoy, M. D., Director Hygienic Laboratory, U. S. Public Health Service, Washington, D. C., W. W. Palmer, B.S., M.D., Bard Professor of Medicine, College of Physicians and Surgeons, Columbia University, New York City, Francis W. Peabody, M. D., Professor of Medicine, Medical School of Harvard University, Boston, Mass., L. G. Rowntree, M.D., Sc.D., Professor of Medicine, Mayo Foundation, Rochester, Minn. (Jour. A. M. A., June 2, 1923, p. 1635).

More Misbranded Nostrums.—The following preparations have been the subject of prosecution by the federal authorities charged with the enforcement of the Food and Drugs Act: Woods V. Tabules (Edward J. Woods), containing zinc phosphid, strychnin and plant extractives. Lukosine (National Drug Co.)—a powder containing approximately 80 per cent of boric acid and small proportions of zinc sulphate, alum and a salicylate, and traces of alkaloid, phenol, thymol and menthol. Eckman's Alterative (Burrows-Little-White Co.), consisting essentially of 94.4 per cent of water flavored with olive oil, 3.3 per cent of calcium chlorid and 2.3 per cent of plant extracts. Gombault's Caustic Balsam (Lawrence-Williams Co.), a mixture of a fatty oil with approximately 20 per cent by volume of oil of turpentine. McGraw's Oil of Life (McGraw Remedy Co.), consisting approximately of 95 per cent of kerosene and small proportions of turpentine oil, tar oil and camphor. Vital Sparks (Hollander-Koshland Co.), gelatin capsules containing a fatty oil, colored red, and a sugar coated pill of zinc phosphid, damiana and strychnin. Mydyl Antiseptic Wafers (Chas. S. Ruckstuhl), composed of borax and starch. Syrup Leptinol (Balsamea Co.), consisting of Leptotaenia dissecta (a plant belonging to the parsnip family), sugar, glycerin, alcohol and water. Sangvin (Dr. M. Spiegel & Sons), composed essentially of plant drugs including a laxative drug, sugar, alcohol, glycerin and water. Peterson's Ointment (Peterson's Ointment Co., Inc.), a petrolatum ointment containing zinc oxid, tannin, phenol, and camphor. (Jour. A. M. A., June 9, 1923, p. 1710.)

Cod Liver Oil in Tuberculosis.—Experiments carried out in the Hygienic Laboratory of the U. S. Public Health Service to determine the

the effect of cod liver oil on the tuberculosis of the guinea-pig failed to show any definitely beneficial effects. There was no evidence of the deposition of calcium when this element was administered along with the cod liver oil. These results warn against unwarranted optimism and justify critical investigation whenever calcium or cod liver oil are lauded as a specific in tuberculosis. (Jour. A. M. A., June 16, 1923, p. 1778.)

Peptone in the Treatment of Migraine.—The Council on Pharmacy and Chemistry publishes a preliminary report on the experimental status of the use of peptone in the treatment of migraine. Drs. Joseph L. Miller and B. O. Raulston report that the intravenous administration of Peptonum Siccum-Armour brought about improvement in a considerable number of cases. The Council points out that commercial peptones are heterogenous mixtures of uncertain composition, and that the results reported may have been due to tissue impurities rather than to peptone itself. It is, therefore, evident that the reported results cannot be made the basis for a rational treatment of migraine. Peptonum Siccum is stated by Armour & Co. to contain 90 per cent of protein. Seventy per cent of the protein content is in the form of peptone and secondary proteoses, while the remaining thirty per cent is in the form of amino-acids. Those who wish to make experiments with peptone in the treatment of migraine should use the particular peptone used by Miller and Raulston or one which has an essentially similar composition. (Jour. A. M. A., June 30, 1923, p. 1910.)

MEDICINE AND SURGERY

RECENT PHASES OF THORACIC SURGERY

The avoidance of an open drainage during the acute pneumonic stage explains more simply than anything else the remarkable reduction of mortality in acute empyema. At Camp Lee, the mortality dropped from more than 40 per cent to less than 5 per cent, when early open drainage was given up. At the St. Louis Children's Hospital, since September, 1919, eighty-three cases of acute empyema have been treated by repeated aspirations during the pneumonie stage, followed by free drainage. There have been ten deaths, but not a single case has been fatal which was not accompanied by serious complications. Intrathoracic operations can be performed on many patients with a disregard of any form of apparatus for differential pressure. These are patients who have extensive adhesions or rigid mediastinal pleurae or those whose vital capacities are high. Others will go through intrathoracic operations more safely if some auxiliary agent is present to assist in inflating the lungs if necessary. Evarts A. Graham, St. Louis Journal A. M. A., June 23, 1923), has found that Gwathmey's suggestion to use an ordinary nitrous oxid machine with a tightly fitting inhaler is satisfactory. He believes that the anesthetic of choice in thoracic work is nitrous oxid and oxygen. At any time during the operation, the lungs can then be inflated. Also in children, even in cases of empyema, much of the fright and terror which accompany an operation under local anesthesia can be avoided in this way. In any event,

the surgeon should remember that too large an opening may cause death, and that the surest way to avoid fatal asphyxia is to close the opening, by plugging it with lung, with gauze compresses or in any other way. Surgical drainage is not necessary in all cases of acute lung abscess. Proper postural drainage and artificial pneumothorax in certain cases will give results just as satisfactory as surgical drainage. Postural drainage will be of value in those cases in which the abscess communicates with a bronchus. Artificial pneumothorax should be reserved for small abscesses without adhesions. Wessler has reported two deaths from artificial pneumothorax. Surgical drainage should certainly be employed in large acute abscesses, and probably in any abscess with increasing toxic symptoms. In chronic lung abscess, surgical drainage with a tube is usually of little avail. In most of these cases, the patient must be content with a life of chronic invalidism, or submit to a radical surgical procedure. The operation of lobectomy is still a most formidable undertaking. In twenty-four cases, Lilienthal has removed one or more lobes. In his series, there has been a total mortality of 54 per cent. Graham, recently, in two cases of chronic lung abscess, has tried freely exposing the diseased portion of lung and burning it out with an actual cautery heated to a dull red. The procedure amounts to a lobectomy performed with a cautery. Details of the operation will be published in another article. The possibility of operating on valves of the heart has recently been opened up. An instrument has been devised which permits cutting of leaflets of a heart valve under direct vision. The heart is entered through an auricular appendage, the rhythm is not impaired, there is no hemorrhage, and there is no need of great haste. Up to the present time, Graham and Allen have used the methods only on dogs, but its application is so simple and so free from shock that it seems possible to extend its use at some time to convert a mitral stenosis in the human into a regurgitation.

THE THERAPEUTIC VALUE OF EGG YOLK IN RICKETS

In view of the high content of fat soluble vitamin in egg yolk, and the close association in nature of this vitamin with the antirachiitc factor, as best exemplified in cod liver oil, it appeared worth while to Alfred F. Hess, New York (Journal A. M. A., July 7, 1923) to test the potency of the yolk in relation to its prophylactic and curative value in rickets. Rats were fed the Sherman and Pappenheimer low phosphorus diet as the basic rickets-producing dietary. To this diet 0.5, 0.3, and 0.25 gm. of egg yolk was added daily. Experiments showed that egg yolk is able not only to protect young rats from rickets, but also to cure them of rickets. Experiments showed, on the other hand, that white of egg is not merely devoid of antirachitic properties but seems to enhance the rickets-producing quality of a dietary. The yolk of one egg was added to the regular formulas of each of twelve infants, in the attempt to forestall the occurrence of rickets and the seasonal ebb of the blood phosphate. In most instances, this addition was made in December, when

the tendency to rickets becomes acute,. By this simple supplement to the diet, all the infants were protected from rickets, as judged by clinical, roentgenologic and chemical criteria. The percentage of inorganic phosphate in the blood, instead of falling to 3.6 mg., the ebb observed last March, was maintained at 4 mg. or more, a level encountered during the summer months. The calcium content of the serum also was unusually high. It is evident that yolk of egg possesses considerable protective value in rickets.

SOME LESS FREQUENTLY CONSIDERED PORTALS OF INFECTION IN ARTHRITIS AND IRITIS

Three less frequently considered portals of entry of recurrent infections are discussed by Ernest E. Irons, Chicago (Journal A. M. A., June 30, 1923): (1) the mucous membranes of the upper respiratory tract; (2) the tissues about the hila of the lungs, and (3) the intestinal tract. In some of these, the lesions are chronic and localized; in others, the infection enters directly through mucous membranes without evident previous lesion. In infectious arthritis, there are sometimes accompanying gastro-intestinal disturbances; in many, these disturbances appear to be secondary effects of the infection, or to result from interference with normal exercise and food-taking; but in some, the relation of symptoms is such as to suggest the possibility that the intestinal infection came first, and that the arthritis resulted from bacteria which entered the body through the intestinal mucosa. There are numerous case reports of iritis associated with gastro-intestinal upsets, constipation or diarrhea in which healing of the iritis has apparently been hastened by treatment directed toward the intestinal tract, either by laxatives or by modifications in diet, with the elimination or reduction of proteins, fats or carbohydrates. It is entirely possible that the real source of infection in some of these cases was in the intestinal tract as assumed, but in many cases, no evidence is furnished to show that other of the recognized possible sources of infection were investigated and excluded. Further, it is possible that recovery may have been hastened by some of the measures referred to, indirectly through the improvement of general nutrition and increase of bodily resistance to infection; and hence, the fact of recovery following dietary of other treatment is not conclusive evidence of the direct etiologic relation of the intestinal infection to the iritis. It is thus difficult to prove directly, in the individual case of iritis or arthritis, that the infection that caused the metastatic lesion entered thru the intestinal tract; but by demonstrating the absence of other sites of infection, the probability of an intestinal portal of entry may be arrived at, provided the conditions under which invasion of the body from the intestine occurs are known. Four cases of ulcerative colitis were studied, and in two of the four the author isolated organisms in cultures from the blood during febrile periods. In both successful cases the organism isolated was a gram-positive staphylococcus which produced a marked zone of hemolysis on blood agar plates, and was identical with a staphylococcus which occurred in overwhelming numbers

in cultures of the stools of the same patients. When conditions are favorable to the entry of organisms through the bowel wall, and when at the same time resistance to infection is depressed, it seems quite possible that metastatic lesions from an intestinal portal may occur.

INTRAPERITONEAL TRANSFUSION WITH CITRATED BLOOD

Cases are cited by J. Martin Sansby and David M. Siperstein, Minneapolis (Journal A. M. A., June 16, 1923), in which the intraperitoneal route for blood transfusion was utilized. The clinical diagnoses in the cases here presented were: (1) malnutrition and congenital syphilis: (2) prematurity and third degree cleft palate; (3) erysipelas, and (4) fibroid uterus and secondary anemia. Ten cubic centimeters of a freshly prepared 2 per cent sodium citrate solution was used to every hundred cubic centimeters of the donor's blood. The donor's blood was then strained through sterile gauze, and, all aseptic precautions being observed, was immediately injected into the peritoneal cavity of the recipient with a glass syringe equipped with a blunt-pointed needle. The site of the injection is preferably lateral to the midline one-half inch below the umbilicus. Two points emphasized are: 1. The citrated blood must be fresh and it must be kept at body temperature. 2. The blood should be injected immediately. Details of the amounts used and results obtained are given.

SOME ORIGINAL BLOOD PRESSURE OBSERVATIONS

Nearly four years ago, Virgil C. Kinney, Wellsville, N. Y. (Journal A. M. A., June 16, 1923), noted "a complete reversal of the normal blood pressure reaction." In a large proportion of both the high and low blood pressure cases, the blood pressure is higher in the patient lying supine than when the patient is standing. In a large majority of patients with heart and kidney disease who cannot breathe well lying supine, this phenomenon occurs. This reversal pressure is also to be found in low blood pressure cases. Kinney believes that the reversal reaction is due to a general lowering of the systolic pressure, the pulse pressure, a lessened cardiac load and a lowered cardiac response. Probably, the arterial, venous and capillary systems all undergo a simultaneous dilatation; and this, with a weakened myocardium would seem to explain the reversal phenomenon. Kinney also believes that some standardized system of taking blood pressure is needed, and that much more work remains to be done before blood pressure reactions can be interpreted in their truest sense.

LATE RESULTS IN THE TREATMENT OF SYPHILIS

H. H. Hazen, Washington, D. C. (Journal A. M. A., June 23, 1923), says that are no satisfactory criteria as to the cure of syphilis. Relapses may occur after a patient has been asymptomatic and had a negative Wassermann reaction for six or seven years. Not all cases of early chancre are cured by modern methods of treatment. The early and intensive administration of arsphenamin may prevent a patient from developing a natural immunity, and a relapse may occur shortly after treatment is discontinued. Cerebro-

spinal syphilis can develop by the time the chancre is manifest. Every patient should have a spinal puncture preferably just before the second course of arsphenamin. A provocative Wassermann may be misleading, and may be dangerous in that a relapse may follow it. A luetin reaction under proper precautions may be of value as a criterion of cure. The results of treatment in early secondary syphilis are surprisingly good. A few cases of late syphilis can be cured, but in the vast majority of cases, late syphilis cannot be cured. Intraspinal therapy will often yield results when intravenous therapy fails.

SPECIFIC SERUM TREATMENT OF EPIDEMIC (LETHARGIC) ENCEPHALITIS

By the use of special methods, a somewhat peculiar streptococcus has been isolated by Edward C. Rosenow, Rochester, Minn. (Journal A. M. A., June 2, 1923), from infceted tonsils, teeth and nasopharynx of patients suffering from various forms of encephalitis. With this streptococcus, typical symptoms and lesions of encephalitis have been reproduced in animals. The type of the disease induced experimentally often resembles that existing in the patient from whom the strain was isolated. The organism varies greatly in size and shape, depending on the method of cultivation. It has been cultivated from filtrates of naso-pharyngeal washings, and from emulsions and filtrates of brain and medulla in fatal cases. Large and small forms, sometimes in the same chain, have been demonstrated in the lesions in undoubted cases of encephalitis, and proved absent in adjacent normal tissues, and in the brains of persons who have died from other causes. In view of these and other facts, Rosenow suggests that the organism with which he is working is the larger aerobic antigenic form of the smaller anaerobic, relatively nonantigenic form isolated by Loewe and Strauss. Thalhimer, and Maggiore and Sindoni, and considered by them the causative agent in encephalitis. In a series of immunologic and other experiments it has been found that, while the various strains are of low virulence, they nevertheless have decided antigenic power. With the dead bacteria, rabbits have been successfully immunized against encephalitis, following the injection of homologous and certain heterogeneous strains. Agglutination and agglutinin absorption tests with convalescent human and hyperimmune horse serum show that most of the strains isolated are immunologically identical, and closely related to the pleomorphic streptococcus which I have isolated in poliomyelitis. On the basis of these findings, methods of treatment by active immunizaiton are being tested in the hope that benefit may be derived in the more chronic forms of the disease, and that recurrences and late manifestations, the so-called sequelae, may be prevented. The serum from rabbits and horses immunized by repeated injections of increasing doses of this streptococcus has been found to protect rabbits and mice against properly gaged doses of homologous, and immunologically similar, heterologous strains. The details as to method of injection are described. The results obtained thus far are encouraging and about what should be expected, in view of the results

of protective and other experiments in animals, at the same time leaving much to be accomplished.

THE ELICITATION AND EVALUATION OF PHYSICAL SIGNS

Mistakes in diagnosis, Henry F. Stoll, Hartford, Conn. (Journal A. M. A., June 9, 1923, says, are about equally divided between the failure to detect the physical signs and the erroneous interpretation placed on the signs elicited. The former results in missing the early cases; the latter frequently causes tuberculosis to be incorrectly diagnosed. There is no divining rod for detecting tuberculosis. Valuable as the diagnostic aids are, it is the clinician who must assemble and carefully weigh the various and at times conflicting bits of evidence. Irrespective of the patient's age or the presenting symptoms, the possibility of tuberculosis should always be considered. The diagnosis does not consist merely in the detection of breath changes, the elicitation of rales, or the discovery of suspicious roentgen-ray findings. It is only by the consideration of all available data that diagnostic accuracy can be obtained.

SIMULTANEOUS LIGATION OF VEIN AND ARTERY

The changes in an extremity which follows obstruction of the primary artery alone and the simultaneous occlusion of the vein and artery were studied experimentally by Barney Brooks and Kirby A. Martin, St. Louis (Journal A. M. A., June 9, 1923). From these experiments, it is evident that gangrene following arterial obstruction is dependent on some other factor than the amount of blood flowing thru the vessels distal to the obstruction; for, if the primary artery of the extremity was occluded, the amount of blood flowing through the extremity was decreased, and if the primary vein and the artery were obstructed, the volume flow was further decreased, but gangrene was less frequent. The statement that gangrene is less frequent after simultaneous ligature of the vein because this procedure results in a retention of blood in the tissues is not an adequate explanation, for tissues require not blood but an exchange of certain substances from blood to the tissues. Tissues require circulation of fluids, not stagnation; movement rather than mass. It was at one time thought that the simultaneous occlusion of the vein might bring about a wider distribution of the smaller quantity of blood. It seemed possible that, after obstruction of the common iliac artery, the blood reaching the thigh through the collateral circulation might pass through the capillary bed of the thigh and return through the veins of the thigh without reaching the foot, and that occlusion of the common iliac vein might prevent this easy return and thereby force a circulation through the vessels of the leg and foot. The experiments, however, in which the temperature of the tissues was measured was contradictory to this theory. These experiments demonstrated that after venous occlusion the temperature of both the foot and thigh was decreased by occlusion of the vein. This indicated that the volume flow of blood was decreased in both the proximal and distal portions of the extremity. It would seem true that if an arterial obstruction exists, simultaneous occlusion of the vein

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brings about two distinct changes in the circulation, distal to the obstruction, one of which may be beneficial and the other harmful. The magnitude of these changes is determined by the degree of venous obstruction of the entire extremity. The more complete the venous obstruction, the more nearly the intravascular blood pressure is raised to that in the artery proximal to the arterial obstruction. But the more complete the venous obstruction, the more nearly the volume flow of blood is diminished to nothing. Ligature of the vein accompanying the obstructed artery results in only a relative venous obstruction, since the collateral veins are not obstructed. The degree of venous obstruction that would follow ligation of a single vein would certainly vary widely in different veins and, no doubt, in the same vein in different individuals. The ligation, then, of a vein or veins would be beneficial or harmful accordingly as the venous obstruction produced would cause to predominate the beneficial effect of elevation of the intravascular pressure or the harmful effect of the decrease in volume flow of blood.

SUPRACLAVICULAR DEPRESSIONS IN THE DIAGNOSIS OF EARLY PULMONARY TUBERCULOSIS

H. A. Bray and A. H. Duerschner, Ray Brook, N. Y. (Journal A. M. A., June 9, 1923), made a comparative study of the incidence, distribution and depth of the supraclavicular depressions in 153 healthy adults and 150 patients with incipient pulmonary tuberculosis. At the same time, an attempt was made to discover methods of differentiating the depressions found in health and in disease. The evidence obtained shows that there is a definite relation between nutrition and the presence and absence of supraclavicular depressions. The depressions are influenced by the size, shape and position of the clavicle. There is a striking similarity in the incidence, distribution and depth of supraclavcular depressions in health and in early tuberculosis. No method was discovered for differentiating depressions in health from those in early tuberculosis. Attempts to correlate depressions with the site and extent of the lesion in early disease have proved impracticable. Although depressions occur with early disease, they are probably not due to the pulmonary lesion. Except possibly in rare instances, supraclavicular depressions are of questionable value in the diagnosis of early pulmonary tuberculosis.

CARDIAC DISORDERS ACCOMPANYING EXOPHTHALMIC GOITER

The current theories of the cause of cardiac disorders that accompany exophthalmic goiter are considered by Ernst P. Boas, New York (Journal A. M. A., June 9, 1923), to be inadequate. Evidence is presented that two mechanical factors may play a part in overloading the heart in exophthalmic goiter, thus making it more susceptible to secondary noxious influences. 1. The tremendous dilatation of the arteries and veins of the thyroid short-circuit the blood flowing to the neck and increase the load on the heart in the same manner as do arteriovenous aneurysms. 2. The heightened oxygen consumption causes an increased minute volume flow of the blood,

which may be from 25 to 60 per cent greater than normal. The increased work thus thrown on the heart is the chief cause for cardiac dilatation, hypertrophy and insufficiency in exophthalmic goiter.

ACUTE INTESTINAL OBSTRUCTION

Hugh McKenna, Chicago (Journal A. M. A., June 9, 1923), insists that enterostomy for acute obstruction should be performed in a precise and definite way. The anatomic location should be such that it will permit picking up the upper jejunum with a minimum amount of trauma. The incision through the abdominal wall should be small, as this arrangement prepares the way for the early formation of a diverticulum of the intestine, which anatomic condition early permits at least a part of the intestinal current to pass in the normal way, after enterostomy has relieved the acute obstruction. This plan is of paramount importance, especially in badly weakened patients in whom, if the entire intestinal content passes out of the enterostomy opening for more than a week, absorption is so interfered with that emaciation swiftly ensues. Moreover, when the enterostomy is high, the pancreatic secretion pouring out of the skin becomes very distressing because of its digestive action. It is therefore of much importance to divert as much of the intestinal content to its normal course as early as possible. This is particularly true in those patients who will not stand early secondary operations for the enterostomy closure. Whatever type of enterostomy is performed, the proceudre having a minimum of intra-abdominal manipulation, with the maximum security against peritoneal contamination, will be considered the operation of choice, irrespective of whether or not a secondary operation will be necessary to close the intestinal fistula.

ISCHIORECTAL ABSCESS FOLLOWED BY GAS GANGRENE; AND GAS GANGRENE FOLLOWING TRAUMA

Two deaths from gas gangrene are reported by Samuel Gordon Berkow and Nathan Robert Tolk, New York (Journal A. M. A., June 9, 1923). The first infection was of the scrotal, perineal and ischiorectal regions and followed ischiorectal abscess; the second gas infection followed a crushing injury to the left leg. In each case the diagnosis was substantiated by bacteriologic and postmortem examinations. In the second case, the patient entered the hospital three days after the first patient succumbed and occupied an adjoining bed. Since there was no other case of gas gangrene on record in this institution, the possibility of cross-infection having occurred must be considered. The conclusions drawn by the authors from their study of these cases are: Lesions of the gastro-intestinal tract for adjoining tissues may be the seat of gas bacillus infection. Gas bacillus infection is probably communicable through fomites. The gas bacillus is demonstrable in the "exploded" muscle tissue of the local focus. Extensive acute changes occur in the spleen, kidneys, liver and brain; but the organism is not demonstrated in these tissues. Proper measures must be instituted for the protection

of patients with traumatic wounds when gas bacillus infection is present or suspected in a hospital.

TREATMENT OF SEASONAL HAY-FEVER AND SOME POSSIBLE CAUSES OF FAILURE

Harry S. Bernton, Washington, D. C. (Journal A. M. A., May 5, 1923), states that no satisfactory method exists either for the classification of patients or for guidance in treatment. Accurate diagnosis and the administration of potent extracts of pollen protein are the essentials in the prophylactic treatment against hay-fever. Nevertheless, there are contributory factors that may affect the outcome. The upper air passages of sensitive persons merit the attention of the specialist. Surgical measures should be employed to remove the mechanical obstruction or to correct deformity. The use of bacterial vaccines has from time to time been included in the treatment of hay-fever. This disease, according to the predonderance of evidence, is an expression of protein intoxication. The role which bacteria play is seemingly unimportant. The paroxysms of sneezing and the constant rhinorrhea tend to dislodge the bacteria and wash away their toxins. Active immunization, despite its limitations, offers hay-fever victims more chance for cure and relief than any other therapeutic measure. Temporary removal to localities where the offending plant does not flourish is possible for a limited number of subjects. Those who are obliged to remain at home during the critical season may, nevertheless, derive comfort through the observance of simple hygienic measures. Wearing amber-colored glasses and driving in closed automobiles may make trips outdoors more inviting. Women will not hesitate to wear veils and combine fashion with comfort. Flowers and dusts of all kinds must be avoided. Bedroom windows, kept closed during the day, will prevent the ingress of pollen grains. During sleeping hours, a screen of muslin, saturated with water, may be placed in front of open windows to admit fresh air. Vigorous exercise outdoors, such as tennis and baseball, should be avoided. With increase in the number and depth of respirations, a larger amount of pollen is inhaled, which aggravates symptoms. Frequent washing of the hair is advised as a means of removing the pollen grains which may have become enmeshed. Avoidance of sudden changes in temperature and of exposure to drafts is of especial importance. Exposure of the body in undressing or getting out of bed will cause a temporary cooling of the body surface and a consequent paroxysm of sneezing. For the same reason, sensitive persons should guard aganist exposure to electric fans.

HEREDITARY CLEIDOCRANIAL DYOSTOSIS

In the family forming the basis of the report made by I. J. McCurdy and R. W. Baer, Frederick, Md., (Journal A. M. A., July 7, 1923), nine cases have occurred in three generations. Five of these subjects have been observed by the authors: a father and four daughters. In the father's generation, ten children died and no data concerning them was obtainable. All of these patients were of small stature. Their heads were relatively large and

brachycephalic in type. Closure of the fontanels and sutures was greatly delayed: in one case, at least, until the sixteenth year. Six more or less prominent cranial bosses were found, corresponding to the frontal, parietal and occipital bones. Sulci corresponding to the cranial sutures separated the bosses. Both the bosses and sulci remained throughout life. A great number of wormian bones were found along the suture lines. Roentgenograms showed the sellae turcicae to be normal. The bridge of the nose was sunken and the facial bones were small. The lower jaw was prognathous. Dentition was late and irregular; the first teeth were retained until puberty. The second dentition was irregular. The palate may be abnormally arched. The clavicles were defective. The acromial end of the clavicle was usually absent. The remaining portion of the clavicle may be either rudimentry or well developed. The shoulders assumed the position of bilateral clavicular fracture. The upper part of the chest in the older subjects became more conical than normal, and was bilaterally flattened. This is probably due to the weight of the arms and shoulders pressing on the upper ribs. The general musculature was good. There appeared to be a compensatory development of the neck and shoulder muscles. The patients were not physical incapacitated in any way. Mobility of the shoulders was increased, and they could be forced to meet in the midline under the chin. All of the patients showed genu valgum. Shortening of the middle phalanges of the toes, mentioned by Jensen, was not present in any. With one exception, they were mentally normal. There were no stigmas of syphilis. Nothing is known concerning the etiology of the affection save that it is hereditary and familial, that both sexes are affected, and that it may be transmitted through either parent.

INFLAMMATION OF THE DEEP CALCANEAL BURSA

Twenty years ago, while dissecting a foot, Arthur E. Hertzler, Halstead, Kan. (Journal A. M. A., July 7, 1923), found a bursa not described in the anatomies. This bursa lies in the beginning portion of the abductor hallucis muscle, extending lateral to the point of origin of the flexor brevis digitorium. Beneath it lie the sheaths of the tibialis posticus. The flexor hallucis longus and the flexor longus digitorium lie lateral to it. The bursa is separated by these tendons from the long plantar ligament. At the time these observations were made, they were regarded as merely of anatomic interest. Some years ago, however, he was consulted by a patient with pain and tenderness in the region in which he had previously observed the bursa. The intense character of the pain and the tenderness to deep pressure caused him to suspect that this bursa was at fault. In harmony with this theory, he made an incision into this area and exposed a bursa. The burst was curetted with a mastoid curet and drained with a gauze wick, the tip of which was moistened with compound solution of iodin. Recovery was complete, and the patient has remained free from pain to date. Clinically, the disease is characterized by tenderness in the front part of the heel just in front of the attachment of the flexor group of mus-

cles previously noted, and lateral to the sustentaculum tali. The patients do not indicate the exact point in giving the account of their complaint, and they know of no posture that affords relief. It is the pronounced pain on deep pressure over the site of the bursa that is characteristic. There are no other points of tenderness, and the usual signs and symptoms of flatfoot are absent.

ROENTGENOGRAMS OF THE FETAL SKELETON AS A POSITIVE SIGN OF PREGNANCY

Irving F. Stein and Robert A. Aarens, Chicago (Journal A. M. A., July 7, 1923, assert that in the second half of pregnancy, fetal roentgenograms are of definite confirmative value: (a) In recognizing clinically obscure presentations and positions, the roentgenogram clinches the diagnosis. (b) In differential diagnosis between pregnancy and other abdominal enlargements, the roentgen-ray evidence is the deciding factor. By pneumoperitoneum, the gravid uterus can be quite typically shown on the film in the early months of pregnancy. This may be considered a profitable sign. Its value in differential diagnosis is obvious. The demonstration of the fetal skeleton by the roentgen ray is the only positive sign of pregnancy possibly obtainable before quickening.

CALCAREOUS DEGENERATION OF THE DORSAL AND LUMBAR AORTAE AS A CAUSE OF BACKACHE

John Ridlon and E. J. Berkheiser, Chicago, (Journal A. M. A., June 23, 1923) state that no examination of a painful back is complete and conclusive without an examination of the circulatory system, and that the treatment of many painful backs ought to be directed by the internist and not by the orthopedist. The routine employment of girdles, braces and plaster jackets and extension in bed should be regarded with skepticism in the treatment of painful backs. Three cases are reported.

HEMORRHAGIC OSTEOMYELITIS

Max Strunsky, New York (Journal A. M. A., June 23, 1923), reports a case of hemorrhagic osteomyelitis of the tibia following a fall. At operation, a cavity in the bone was found, filled with a viscid, bloody material. The cyst was curetted and scrubbed with iodin and alcohol. The incision was then enlarged over the entire length of the tibia, and the entire crest of the tibia removed. The graft was cut into fragments and dropped into the cavity, which even then was only one third filled. The patient recovered entirely in eighteen months.

INTRACUTANEOUS REACTIONS IN PERTUSSIS

Thomas G. Hull and Ralph W. Nauss, Springfield, Ill. (Journal A. M. A., June 23, 1923), used nine different preparations of pertussis vaccine, and 341 injections were made intracutaneously. The work was done at an institution where an epidemic of whooping cough was developing. The ages of the children tested in most instances were from 8 to 12 years. The results of the investigations recorded do not indicate that preparations of pertussis bacilli can be used intracutaneously to diagnose whooping

cough. Freshly prepared suspensions, suspensions 3 years old, suspensions killed by heat and suspensions killed by chemicals gave results that were conflicting. Nearly all children, whatever their ailments, gave positive reactions. Whooping cough patients at times gave negative reactions, however.

SIMPLE GOITER AS A PREVENTABLE DISEASE

"The old notion of 'diathetic diseases' is now giving place to the more definite concept of disorders of metabolism, many, perhaps all, of which are bound up with some bouleversement of hormonic equilibrium or some disturbance of function in the ductless glands."[1] Laboratory research and experimentation are making this pronouncement of Dr. Fielding H. Garrison, medical historian, more evident each day; but the regrettable fact remains that our prophylaxis does not altogether keep step with our knowledge. The studies of Marine and Kimball with regard to simple goiter, which were made possible under research grants from the American Medical Association, emphasize the prevalence of simple goiter and point to a method of prevention. Hypertrophy of the thyroid has been recognized from early centuries as a definite disease. Aetius of Amida, who lived in Byzantium in the sixth century A. D., gives an interesting chapter on goiter in his book "Tetrabiblion," and it was discussed by Ruggiero Frugardi in the Salernian school.[2] Moreover, that very brilliant charlatan Paracelsus was the first to establish a correlation between cretinism and endemic goiter.

While simple goiter may develop sporadically in almost any locality, even at sea, as it did during one of Cook's voyages, its strongholds have been in plateaus and mountain regions, as in contradistinction to seacoast countries. McCarrison[3] reports, for the year 1912, 4,869 cases in the district of Monghyr and 3,142 in Bhagalpur in India, both of which districts lie in the Himalayan altitudes. In France alone there were 500,000 cases of goiter in 1874; in Switzerland, 12,207 men were exempted from military duty for this cause in the period from 1875 to 1881, and in Italy, from 1859 to 1864, 3 per cent of the conscripts were excused from service on account of this affection.[4] In spite of the recognition of the prevalence of goiter, it is only recently that any systematic attempt has been made toward its prevention. As early as 1820, Dumas and Coindet[5] demonstrated the value of iodin treatment; in 1896, iodothyrin was isolated by Baumann, who indicated its relation to iodin metabolism, and in 1916 Kendall definitely determined this content as tri-iodo-indolpropionic acid. Kimball,[6] in his report, assembles collected data to show that there is truth in Marine's dictum that "simple goiter is the easiest known disease to prevent." He thus summarizes the conclusions

1. Garrison, F. H.: History of Medicine, W. B. Saunders Company, 1921, p. 732.

2. Garrison: History of Medicine, pp. 112 and 141.

3. McCarrison: The Distribution of Goiter in India, Indian J. M. Res. 2:778, 1914-1915.

4. Clark, T., and Pierce, C. C.: Endemic Goiter: Its Possible Relation to Water Supply, Reprint 184, U. S. P. H. S., May, 1921.

5. Coindet: Ann. de chim. et phy. 15:49-50, 1820.

6. Kimball, O. P.: Pub. Health Rep., April 27, 1923.

of Marine and Lenhart: 1. Iodin is necessary for normal thyroid function. 2. The iodin content varies inversely with the degree of hyperplasia. 3. The percentage of iodin present in individual thyroids is variable, but there is quite constant minimum percentage which is necessary for the maintenance of normal or colloid gland structure. If the iodin content falls below 0.1 per cent, active hyperplasia begins.

In a series of experiments from 1909 to 1911, Marine and Lenhart showed that goiter, which had virtually ruined the fish hatcheries at Shady Grove, Pa., could be eliminated by the addition of a small amount of iodin to the food. This was the basis of Marine's dictum, referred to above.

In the work of Marine and Kimball, which has been referred to repeatedly in The Journal, nearly 10,000 girls in Akron, Ohio ,were examined in the course of three years. In the first examination, 56 per cent were found to have goiters. The method of prevention was the administration of 3 grains of sodium iodid in the drinking water once a day for two weeks each spring and fall. Of those taking this prophylactic dose, no normal girl developed goiter, while 27.6 per cent of those not taking it, and who had been without goiter at the beginning, developed either goiter or enlargement of the thyroid. The goiter disappeared in 60 per cent of those who have goiter at the beginning and took prophylactic doses. Kimball says, in comment on these experiments, "From our experience in Akron we know that if a girl's thyroid is kept saturated with iodin during the years of adolescence, a goiter will not develop; and when we remember that the total storage capacity of the normal thyroid is approximately three fourths of 1 grain of iodin, we appreciate that a small fraction of a grain of iodin at weekly intervals is sufficient to assure the full normal iodin content of the gland."

The findings of Marine and Kimball as to this method of prevention of goiter were forwarded to Switzerland in 1917, where they were employed with some slight modification as to the form of iodin. A report of the health commission of the canton of St. Gall shows that in January, 1918, the incidence of goiter among school children of that canton was 87.6 per cent, and in January, 1922, after iodin admintration, 13.1 per cent.

This prophylactic administration of iodin has been extended in Ohio and has also been taken up in Michigan, but has not as yet found the extended application that it seems to merit. Kimball states that the possible harm from the dosage of iodin employed is absolutely negligible; that in the work in Akron a mild rash appeared in one per thousand cases treated, and that neither in this country nor in Switzerland has a single case of exophthalmic goiter been produced. His report ends with a plea for the administration of iodin as a routine prophylactic to girls during adolescence, and, in endemic goiter districts, to women during pregnancy. Since girls are six times as susceptible as boys, he believes that cases among the latter may be treated as they arise, especially since it is demonstrated that in them it disappears if treated promptly and properly.—Jour. A. M. A., June 9, 1923.

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MORTALITY AMONG WOMEN FROM CAUSES INCIDENTAL TO CHILD-BEARING — WHAT CAN BE DONE TO REDUCE IT?

By S. D. H. WISE, M. D.
Parkersburg, W. Va.

A glance at the comparative statements compiled from our vital statistics showing the effect of our efforts to lengthen the span of human life is very gatifying indeed, but I was very much depressed when I examined the record in one of the most important elements of our population—that of the child-bearing women between the ages of fifteen and forty-four.

No very satisfactory method of computing on a percentage basis is possible, but when we come to consider that in many parts of our country one death occurs in every one to two hundred pregnancies it becomes a very serious matter. How many of us would be willing to join an institution where we knew we had one chance in a hundred to die to carry out the object for which it was created?

How much more sad is the story when we come to consider that the large majority of these deaths are classed as preventable.

This, I take it, is sufficient excuse for bringing this subject before you today for your discussion.

Coming at the most productive period of her existence, and leaving, as it so often does, two of the most helpless beings in the world—the new-born babe and its widowed father—and depriving the mother of the greatest joy that comes to most women—that of holding her own new-born babe to its mother's breast.

Ah, the joy of each true mother
When a message comes from Heaven
  That an infant's life's reserved for her;
And some day will be given
In the image of it's Maker
  And entrusted to her care—
The pleasure of her daily life,
The burden of her prayer.

But just here let me pause, realizing that no words of mine can ex-

press the joy of the true mother and father with their new-born babe, and would be equally inadequate to express the grief caused by the death of the mother.

Sad enough were this the end of the story, but as a result a large number of these unfortunate babes are doomed to perish. And it so often means the destruction of one of the nation's greatest assets—the American home. It also ends the possibility for the mother's contribution to her country in service and further addition to its population—an element we can ill afford to lose.

Since almost every productive home is exposed to these dangers, it becomes nation-wide in its proportions, and since the national welfare is so intimately associated with, and dependent upon this element of its population, it seems to me it should become a national burden to carry on the work of education, so necessary for the prevention of these deaths.

For the statistics herewith presented I wish to thank the statisticians of the Metropolitan Life Insurance Company. This represents a great amount of questionaire and follow-up work by this department to ascertain the exact cause of death, and in this respect it is more accurate than our National Vital Statistics.

The following table is based on 10,056 deaths in the age period 15 to 44, covering a period of six years. These deaths, when related to the 14,700,000 women exposed, corresponds to a death rate of 68.4 per 100,000 women at these ages. Of the total deaths 8,288 occurred among white females and 1,768 among colored females; the rate per 100,000 for the two races being 66.1 and 82.3 for the white and colored women respectively. It is thus shown that the colored women suffer much more seriously than the white from the diseases and conditions incidental to child bearing.

These deaths were due to a number of diseases and conditions complicating or characteristic of the puerperal state.

The following table shows the number and percentage of deaths, as well as the rate per 100,000 females exposed at these ages and several conditions:

Puerperal disease or condition	White and colored			White			Colored		
	Deaths	Per cent. of total	Rate per 100000	Deaths	Per cent. of total	Rate per 100000	Deaths	Per cent. of total	Rate per 100000
Total puerperal diseases and conditions..	10,056	100.0	68.4	8,288	100.0	66.1	1,768	100.0	82.3
Accidents of pregnancy..	874	8.7	5.9	704	8.5	5.6	170	9.6	7.9
Puerperal hemorrhage....	779	7.7	5.3	670	8.1	5.3	109	6.2	5.1
Other accidents of labor	1,020	10.1	6.9	827	10.0	6.6	193	10.9	9.0
Puerperal septicemia.....	4,321	43.0	29.4	3,494	42.2	27.9	827	46.8	38.5
Puerperal albuminuria and convulsions	2,654	26.4	18.1	2,233	26.9	17.8	421	23.8	19.6
Other puerperal diseases and conditions	408	4.1	2.8	360	4.3	2.9	48	2.7	2.2

It would be interesting to classify these deaths according to the period of their occurrence, that is, whether during pregnancy, at confinement or following labor. Unfortunately, present methods of certification do not make it possible. Yet this is very conclusive evidence as to the extent of the diseases and the various complications leading up to these deaths.

Now what can we say in answer to the question which such a calamity provokes? What can we do to reduce this mortality?

I realize that this covers almost the entire field, and I hope those who wish to discuss the subject may not feel limited to the few parts touched upon in this short paper.

Thanks to our predecessors who have discovered the cause and prevention of so many of these diseases, and shame is ours if we fail to pass this information on to the people.

Our textbooks are so full of well classified information that it is not necessary, and would be presumption on my part to enter this field; and yet with all this wealth of knowledge at our command we have this distressing mortality, second only to tuberculosis among the class exposed.

In my opinion the trained physicians and nurses are best qualified to execute this work; but they cannot force their services on the people, and according to our present standard of ethics are not expected to advertise their wares to the public to any considerable extent.

Education of the public is very necessary, and even then people will not do as well as they know.

After years of careful study and application in the field of welfare work, the Metropolitan Life Insurance Company has demonstrated that money invested in a life saving enterprise can be made to pay a handsome dividend. In the beginning of their work they found that nursing service supplied after the birth of the babe was not sufficient since about one third of the deaths were found to be due to puerperal albuminuria and convulsions and accidents in pregnancy, and now the Metropoltian nurse is directed to call as soon as the prospective mother reports a condition of pregnancy. If this is good business for the insurance company, would it not be good propaganda to interest the prospective mother to consult her physician and have his inspection all through the period of pregnancy?

Now if a private institution can show good results from its educational and welfare work, why should we not have a right to look to our government for assistance? We have money appropriated for the scab on our potato, smut on the wheat, weevil in the cotton, and any disease among our animals receives attention at the hands of our lawmakers. This treatment is directed by trained men, on a scientific basis, but the human animal is allowed to have his medication continue as a mystery, by all forms of quackery and money-grabbing devices, and the government goes on carrying their ads to the public through the mail, provided they do not make too strong a claim for their curative effect. But so far man seems to desire this sort of thing. Is it not due to his form of education, superstition and ignorance?

This loss of life is a national calamity, and anything short of an organization national in its opera-

tion must necessarily fall short of the best results.

In my opinion we should have a National Board of Health, with a member in the President's Cabinet; selected because of his qualifications for the work; then through this we could be organized, down through the State, with its all-time county health officer, public nurse, and public school nursing service. This organization could interest the public in the various health educational drives. It is surprising what can be accomplished through the various civic organizations when working under trained leadership. In Wood County we have just completed a most successful drive to interest our people in caring for our tubercular sufferers.

This work was carried through by Anti-Tuberculosis League officers, assisted by a citizen's committee; the medical inspections were made by the members of the Little Kanawha and Ohio Valley Medical Society, under the direction of Doctor White, superintendent of the Tuberculosis League Hospital, of Pittsburgh, Pa. Doctor White is one of America's most able champions of the tuberculosis crusade. He is taking a year to conduct these surveys throughout the United States.

I am firm in my belief that this work would have been impossible twenty years ago and it simply goes to show what can be done in the way of education in public health matters.

Now a word to our physicians. Are we carrying out the work so well outlined for our instruction? Would it be possible for us to do our work so thoroughly that our services would be more generally sought? Are we inviting our friends to come to us for advice and frequent inspections during the period of pregnancy, or are we allowing these prospective mothers to worry along, reading the advertisements for "Mother's Friend" and listening to the chatter of some neighbor who "mighty ni' died when her baby was born?" I wonder if it was a doctor, many years ago, who gave this advice, "Let nature take its course?" Well that may have been the best thing he knew to do, but nature, like the course of true love, is often interfered with, and here is where the physician, with his knowledge and skill steps into the breach.

Turning again to our statistics we find them well classified and this gives us an idea of the means that must be employed to cope with the particular disease. We find puerperal albuminuria and convulsions and accidents to pregnancy responsible for more than one third of the deaths, and here is a very fertile field for preventive work, but so often the physician is not called until the hour of convulsions or labor. Under accidents to pregnancy we find many contributing causes, but abortion, induced and accidental, premature birth and extra-uterine pregnancy account for the large majority. Here we find syphilis, gonorrhoea, self induced abortion and the most detestable and damnable of all, the nostrum vender and criminal abortionist, responsible for many of these deaths. Take no chances on hell or future punishment for these offenders. Send them to prison!

By far the largest percentage of sickness and death is due to Puerperal Septicemia. It seems to have

periods of severity and seems to run in cycles of four or five years. This may be due to greater virulence of the streptococci and possibly the prevalence of scarlet fever. Here we think that cleanliness is the great remedy for preventing this disease, but if the mother has not been properly treated all the care of the physician and nurse will not prevent infection following the labor. I wonder if I could be pardoned for the following to illustrate this point? It also goes to show that we are human. A doctor was called to see a woman in labor at term. She and her husband had just returned two hours previously from the picture show. She was almost frantic and asked the doctor if anything could be done, fearing from what had happened only an hour before that she might become pregnant again and have the whole thing to go through with again in nine months. She had a mild degree of infection, but when the babe was nineteen days old she called the doctor to know if it would do any harm if she should come down street to have her hair washed and dressed as she wanted to go to the New Year's Eve Ball. She said she could leave the baby with its grandmother and go out between dances at 1:30 a. m. to let it nurse. This I take it is an extreme case, but we do not know how often the nurse and doctor come in for criticism when the mother was already infected.

We find ten per cent of the deaths were due to accidents due to labor. Breech presentation, Caesarean section and forceps operations accounting for most of these deaths. Except in the primipara I can see no very great danger from a breech presentation. Many men prefer to do a version in a slow, inactive labor. By selecting the time (when dilatation is complete) unless for some very urgent, legitimate reason, I see no reason to dread a version; it is usually the quickest way to deliver many of the cases.

I am not sure of what I am about to say just here, but I am of the opinion that some Caesarean sections have been done more from desire than necessity, or from a lack of skill on the part of the obstetrician. In my experience with over two thousand deliveries at term I have only found it necessary to call a physician in one case to assist me, and every mother was alive at the end of three months. Possibly I have drawn good hands so far.

The use of forceps does not mean simply picking up any set of forceps that can be locked on a child's head and then pulling the child away by force. However this can be done and the child be delivered (dead or alive). Usually it is not the offender and no such instructions should be given for its capture. By selecting the proper instrument and the time for applying, getting the patient in the right position, using the proper amount of force at the proper time and in the right direction, and taking them off at the right time, the soft parts of the mother will as a rule not be damaged; and when they are, the lacerated areas should be hunted out and repaired—this will often prevent infection.

I believe the most crude operative work I have ever witnessed was in delivery with forceps. I would just like to add here that with the use of pituitrin the necessity for the resort to forceps and version has been decidedly lessened. I am of the

opinion that the deaths from hemorrhage, which is responsible for almost 8% of these deaths, will be decidedly reduced in the class of cases where its use is indicated. Listen! Don't use it without knowing the indications and the time for its administration, or this mortality may be increased. Continuous, slow postpartum bleeding is often associated with a clot, and I have made it a practice to remove them. I even consider introducing a clean hand less objectionable than allowing the clot to be expelled later. Clots predispose to infection and cause a very disagreeable odor in a short time.

Now I see some young men here, and let me suggest to you that one of the greatest aids in treating disease is to be able to get the confidence and cooperation of the patient. It is not the best equipped physician that gets the most practice, but as a rule you will find the man or woman who makes positive, assuring statements, who has the ability to compel confidence, and the man who is willing to do more than make an examination, write a prescription and look wise, who is doing the most work, although I have seen a few in the past who could look at the tongue, feel the pulse, gaze out the window with that far-away look of meditation, collect his fee and be considered a miracle man, and usually he was, and little else. The people have been educated to look upon the healing of the sick as a sort of mystery. Now in closing, allow me to call your attention to just one aid in labor. I fear many of the older men have been sinners when they failed to give relief of pain to the suffering patient. Now, gentlemen, it is a fact that there is no more patient sufferer in the world than the woman who is here laboring to reproduce the race. But, because she is patient is no excuse for denying the needed relief; don't assume the attitude that she is pregnant and must have the child regardless of the pain. How long would it take our surgeons to empty the hospitals if they should assume this attitude? I believe a little H. M. C. in the early painful stage is of great benefit but when the head is passing through the cervix, and in the severe painful parts of the second stage, nothing compares to a little chloroform judiciously applied. I believe I have given it in more than three fourths of the more than two thousand labors that I have attended and can say that I consider it the safest place for its use. Now we all love to go back and look through youth's scrapbook. I can hear my old professor as he stood before the boys, and in the same strain and spirit I am going to try to work out on the young men here. "Now, ladies, and gentlemen, if we have in this agent or that agent that which will relax your muscular spasm and relieve pain, then thanks to this agent or that agent, whatever it may be, not because it is medicine, but because it relieves your pain, giving you that feeling of ease, instead of that feeling of disease. Who wants disease? Nobody! Who wants ease? Everybody! Then, ladies and gentlemen, why not give our little suffering lady a little H. M. C. or a little chloroform, as the case might demand, and relieve her pain; and when she wakens presently with a smile on her face and her baby by her side, she will sing your praises to the

skies, and she will tell every pregnant woman in her community (and she knows every one of them), and soon, very soon, my young obstetrician will be having that which he so much longs for, and has so well earned—a practice."

LOOKING BACK FROM FIFTY-THREE

Well, here I am at fifty-three; my head's
a little gray,
My eyes might be just slightly dim, but, By
George, I'm just as gay
As when I dropped the traces, at the setting
of the sun,
And went out walking with my girl, when
I was twenty-one.

Oh, it is such a pleasure to sit down here
and write,
And look through the sunshine, and the
shadows, day and night;
Of the years that long have vanished, and
left their painted scroll
To recompense me in old age, and satisfy
my soul.

The first part of our picture, of course, we
cannot see;
It was painted for our mother, in her book
of Memory.
It's the one thing, if you'd ask her, that
she'd most highly prize,
And beg to take it with her, for her Scrap-
Book in the Skies.

Oh, the joy of each true mother, when a
message comes from Heaven
That an infant life's reserved for her, and
some day will be given,
In the image of her Maker, and entrusted to
her care—
The pleasure of her daily life—the burden
of her prayer.

I have seen them by the thousand, when first
they'd ope' their eyes
And yell, "I'm glad to see you—I'm just from
Paradise."
That angel took my coat with him, and I
must have another.
Please wash my face and comb my head, I
want to see my mother.

Now you just watch when the washing's done,
and aunty combs its head,
And when it gets its coateys on and snuggles
up in bed.
Then Papa comes in smiling, he'll maybe
shed a tear;
But they'll kiss as they never kissed before—
(it's the one kiss you don't hear!)

They kissed when they were married—you
could hear them for a mile;
But now they kiss in silence—in tears—per-
haps they'll smile.
The first tie by the preacher—he tied and
took his toll—
But this tie is from Heaven—by an immortal
soul.

Ah, Man, there are debts you are owing, that
you can never pay.
The first to your mother, when you were
born, and this to your wife today.
For next to your Creator, who redeems your
soul from sin,
Must be your re-producer—with your debts,
please count that in.

And the man who slights the mother of the
child that bares his name
Should have Cain's mark upon him and hide
his face in shame.
And as I sit here musing I'll add another
line,
Acknowledging the debt I owe — Thanks,
Mother, and Wife of mine!

—S. D. H. W., 1919-20-21.

Discussion

Dr. Harry G. Steele, Bluefield:

I think I am more or less handicapped when I come after such a man as Dr. Wise, because Dr. Wise always has something good to tell us, and he tells it in such a pleasing manner that anything I have to say will fall more or less flat.

I certainly enjoyed Dr. Wise's paper. I always like to hear him talk, but this is one particular subject in which we are all more or less interested. I am especially interested, and I hope that you will excuse anything I have to say in reference to my own experience. That

is the way in which I am going to give it, because I think we want each other's experiences.

In preventing deaths of mothers in these cases that Dr. Wise mentioned, we might speak of some things that he did not mention. One thing upon which he did touch is extra-uterine pregnancy. That is hard to diagnose in the early stages, but we should try to make the diagnosis and get them to the hospital, or where they can get the proper care, as soon as possible. Of course, we have tubal pregnancy and abdominal pregnancy, and things like that.

Placenta praevia and the position of the placenta in utero: I read a paper before this Association a few years ago that some men laughed at, but I want you, when you go home, to take your stethoscope and see if you can not locate the placenta. I am sure that you can in almost every case, especially if on either side of the uterus or in front. Thus in many cases you can diagnose a placenta praevia before you have the symptoms. The two reasons I wrote that paper were these: Watch out for placenta praevia and watch out in cases of Caesarian section. If surgeons have a Caesarian section to perform, go over the abdomen and see if you can not determine the position of the placenta. If it is in front you will have a severe hemorrhage; if on the side you need not bother. You can do it if you will take a little time. Some of you older men may say this is all bosh, but try it once.

Eclampsia: I believe a great many cases of eclampsia can be prevented if the patients come to you in time. But even if you have a mother three or four times and warn her to come in early pregnancy, she will wait until the last minute before she tells you anything about it. We want to educate our patients to come to us early. Examinations of the urine and blood pressure readings will help in a great many cases.

Pyelonephritis: I had a case several months ago. Some of us wait until the end of the nine months, but had I waited that women would have been dead. I waited a while, until the fever subsided, and then called in several other physicians, and we agreed to induce a therapeutic abortion. That was done and the woman went home feeling pretty well.

Hemorrhage: Use ergot; use pituitrin; have plenty of hot water on hand, and keep down the hemorrhage.

Lacerated cervix: You know we get a great many of our cancers down in the cervical region, and I believe a great many can be prevented by early repair. In these lacerated cervices you also have infection, which you will have to be careful about.

Laceration of the perineum: I believe that laceration of the perineum should be repaired soon.

I know of one doctor in Philadelphia who repairs all his cervices about the seventh day. I noticed a little article recently which said repair the cervix on the seventh or ninth day and let the patient go home at about the end of two weeks, but I like to keep them in bed a little longer. However, there is not pressure on that, and you can tell the patients to take care of themselves.

Dr. William P. Bonar, Moundsville:

I am very glad to get an opportunity to discuss this paper, because this subject would fill a book. I have been in this work for a long time, having lectured to the nurses in the hospital for eleven years in obstetrics.

The last fourteen cases of eclampsia that I have had I have been able to save. However, I am expecting to get some day a string of them that will die.

First, to take up the subject of hemorrhage, I insist that every doctor that has a prospective case of obstetrics take the history of his patient and the family history in regard to hemorrhage, going back two or three generations, if necessary. But don't scare the patient to death by telling her that she may have a hemorrhage.

Septicemia: I doubt if one case in ten of septicemia in pregnancy is due to the doctor. I would say that nine cases in ten are due to the patient herself or to the husband.

Albuminuria is an indication that trouble may be brewing, though trouble may be brewing and eclampsia come on, either before labor or postpartum, without albuminuria and without any swelling of hands or feet or puffiness under the eyes. Watch your patient very closely for nervousness, twitchings, etc. I would insist that every pregnant woman be instructed concerning herself about everything the doctor knows that may be of benefit to her, and that she also be told of the things that may be detrimental. There should be training of the patient herself, training of the husband, and training of the person who is going to take care of her.

As for pituitrin, sometimes we see it used when we think that the pituitary body should never have been discovered. At other times we think it is the finger of God to save a life and do wonderful work. I have seen one case in which it was used I think it caused the death of the mother. The mother had heart disease. She had been in labor only a short time when the baby was born, and she soon died.

As to abortions, criminal or accidental, they are responsible for a great many deaths that the public have not been enlightened about. As Dr. Wise said, about as soon as a woman becomes pregnant she seeks the doctor and seeks all her friends to find out how she can discontinue or interrupt the pregnancy. We ought to teach our women that it is a natural consequence and must not be interfered with.

As for assistants, Dr. Wise stated that he had not had very much assistance in his labor cases, especially in eclampsia, etc. I feel that in my own case this would be a mistake. I always have an assistant where I find there is any trouble, if I can obtain one. We people who work in a hospital are spoiled. We should try to get out in the country and learn to take care of these cases without a hospital. We have it to do sometimes, and we should educate ourselves in such a way that we can do it. When it becomes necessary to give an anesthetic to a case for interruption, instrumental delivery, etc., I think it is necessary to have an assistant to administer the anesthetic.

As to giving relief from pain, I think sometimes we do our patients harm by doing this, and sometimes do the offspring more harm. I am

not absolutely opposed to it. You have to use your judgment, and not let your patient dictate to you as to when forceps should be used and when not used, and so with all the other procedures.

* * *

Dr. Walter E. Vest, Huntington:

There are two or three questions I want to ask, and hope that the gentlemen will give me the benefit of their opinions. I do not do any obstetrical work.

The first question I want to ask Dr. Wise is this: What do you believe to be proper when you find a pregnant woman suffering from active tuberculosis? Personally I have very strong prejudices on the subject, but I want to find out what you think. What is the proper advice to give her with reference to therapeutic abortion?

The second question is this: Have you gentlemen who do obstetrics found blood chemistry of any special value in determining when uremia is about to intervene, or have you not? Is it or is it not of more value than blood pressure readings?

Personally I am of the opinion that you should always examine a catheterized specimen in the presence of albuminuria, as sometimes a voided specimen will show albumin from the vagina.

I would like to ask Dr. Wise, also, what percentage of patients he sees who are ill, chronically ill, after labor, whose illness he attributes to pituitrin, those with torn cervices, enlarged cervices, especially backaches due to pituitrin. It seems to me that the percentage of morbidity, of chronic morbidity—the women up and around, but not well—is probably higher than it was before the use of pituitrin, and I am of the opinion that the patient would be far better off, so far as her after life is concerned, if pituitrin were not used.

* * *

Dr. Aubry C. Belcher, Huntington:

All the pregnancies that I run into are hydronephroses, pyelitis granulosa, etc. Those are the cases I bump into, and I am asked the question frequently whether or not we should do a therapeutic abortion. I had one case of pyelitis granulosa in which I did a nephrectomy at five months. The woman later was delivered of a normal child. I wonder sometimes whether we should not be a little more conservative in this matter, for the future comfort and happiness of the family.

* * *

Dr. Wise, closing the discussion:

I have not much to add, except in regard to the suggestion as to tuberculosis. It is hard, in a paper of this length, to go into detail about things, and possibly I was misunderstood on several points.

As to assistance, I was speaking of labor at term. When our child was born Dr. Sharpe assisted me in that labor. In another case I had a sick headache, and asked the family to call in Dr. Campbell, who assisted me in that case.

I have seen possibly five or six deaths, not in labor at term and not in my own practice in the beginning. They were all what I would consider neglected cases. I have seen two deaths following labor where they had no physician. One had used bichloride of mercury as a douche, and died from mercurial poisoning; the other had neuralgia in the shoulder for which she had

been taking some tablets. She died on the seventh day, after she had gotten up and prepared supper for the family, after taking care of the baby. Later she was found dead in bed. I had removed the placenta two hours after the birth in this case, but I attributed the death to the tablets taken for the neuralgia.

As to tuberculosis in pregnancy, I had one case that had been in Denver. She developed a very high fever after three weeks, and was losing weight — had gone from a hundred and forty to a hundred and nine. The cervix was never closed, but was always discharging. We dilated the cervix with the finger and delivered the child. She did not seem to suffer much. In about two years, after she had gone home to Indiana, she came back pregnant again. She had a similar attack, with fever to 106. We did not wait, but dilated the cervix and removed the child at four and a half months. The child was delivered in about an hour. The woman got better and went back to Parkersburg, and in a short time she weighed a hundred and eighty-two pounds.

I had two other women with tuberculosis. I had them sleep outdoors, etc. One was delivered of a normal child, and apparently recovered from the tuberculosis. In three years she was again pregnant. The other, four months after her delivery, had influenza and pneumonia, with a very severe pleurisy. There was a small cavity. She died from neglect—had no one to take care of her. She had three children sick, and was taking care of them.

On the subject of pain there is much to be said. I never give H. M. C. late in a labor case. I give it early, when they are having pain all the time, nagging pains and not much labor. If you give it late you will have trouble with the baby—it will have a bluish appearance and have difficulty in breathing. I always put the baby right into warm water. He is cold, and wants to be warm, so I put him into the warm water. You can wash everything off that baby that is of a slimy character in the warm water, clean its hair, etc. Don't give a full dose of H. M. C. toward the end of labor, or you will have a blue baby.

As to pituitrin, I do not use it very often. The cases in which I do use it are those where the woman has very little labor, where she is worn out, and where the cervix is relaxed. I would rather use it than instruments. I do not use instruments because I can get through so much sooner. I do it to save the woman, if I can. I do not apply the forceps and pull with all my strength, but take plenty of time. I have never used instruments and then regretted it.

I do not want you to think that I make dopers of my patients. I imagine I use less morphin than almost any other doctor, for I do not want to make my patients dopers. I do not want to use chloroform too extensively, but I think it is safe, and I think it is a godsend to the woman, and I see nothing detrimental in using a small amount at the proper time to ease the pains and give the woman relief.

* * *

Dr. Steele:

Is there any law to prevent a doctor's giving chloroform in these cases without an assistant? I have heard that there is such a law. I often give it when necessary with-

out an assistant, with only some woman from the neighborhood present.

SOME INDICATIONS FOR THE USE OF FORCEPS

Read at Fifty-sixth Annual Meeting, West Virginia Medical Association, Beckley

By JAS. R. BLOSS, M. D.
Huntington, W. Va.

It has been a long time since I have written anything to be read before the Society. My personal opinion has been that I filled the role of listener far better, and that I had nothing new to offer.

In my opinion the field of medicine presents no specialty of more importance than this one. In spite of this fact it is by far the most neglected of all the branches of our profession. The great majority of physicians detest maternity work. The consequence is that the service rendered and the results produced do not measure up to the standard realized in other departments.

One has but to be observing in his pelvic examinations of female patients and it soon becomes apparent that the majority of physicians giving obstetric service either are ignorant of its importance, indifferent to the outcome, or shamefully careless in their handling of these patients.

It is no justification that we maintain it the poorest paid and least appreciated of any work we do. This is our own fault in that we have not taught the people the supreme necessity for the very best in the way of care and attention during gestation, delivery, and the post partum convalescence. At times one wonders, in view of end results, if they have not been overcharged in many instances, no matter how small the fee.

The magnitude and importance of the whole specialty is so great that it will be possible to bring before you but one feature in a paper of this kind. I have chosen to bring up for discussion the subject, "Some Indications for the Use of Forceps."

Physicians who would not for a moment think of undertaking a simple appendectomy or salpingectomy because of lack of surgical technic, will unhesitatingly undertake a forceps delivery with the head at the midplane, or even inlet of the pelvis, giving no thought to the ultimate outcome for the mother or infant, not realizing, or, worse still, not caring, that there is no operation requiring a greater degree of skill surgically, or which has a greater influence for years of future invalidism with its attendant unhappiness for the woman, if bungingly performed.

Not all of us can be specialists in this any more than any other department of medicine, nor do I think it advisable for us as physicians, certainly not for the sake of the sick, that we all become specialists, but all of us can give far better service in this particular field than has been our custom in the past.

The history of forceps, a description of the numerous types and so on, would prove an interesting essay for a day's discussion. I will bring to you only the indications for the use of this instrument, and a few points in its employment which have come to me from personal observation and experience.

The primary consideration of this instrument, and one seemingly not

grasped, is that its sole function is simply traction. It is not a lever, neither is it a wrench to be applied for the purpose of twisting the child about from one position in the pelvic channel to another. A failure to grasp this idea has resulted in the tearing of the vagina loose from its pelvic attachments, and even opened the bladder. To use it as a lever and give the pendulum swinging motion from side to side endangers the maternal soft tissues from crushing between the broad surfaces of the blades and the walls of the bony pelvis; an antero-posterior swinging of the handles is even more dangerous because of the sharper edges of the blades. How often have you seen this manouvre resorted to by physicians who should have better judgment. A failure to grasp the importance of this point is probably responsible for many cystoceles, rectoceles, thromboses of the pelvic and femoral veins, with the attendant suffering, prolonged convalescence and possibly total invalidism.

Before taking up for discussion the indications for the use of forceps it is advisable for us to consider briefly some of the prerequisites and contraindications to the employment of this instrument.

To begin with the child must be living and viable. This is true unless the delivery of a dead child will be easily accomplished with forceps. If this is difficult perforation should be resorted to.

The next consideration is that the cervix be either fully dilated or easily dilatable. If this condition does not exist one may produce a dangerous laceration of the lower uterine segment. In some emergencies it is possible to make multiple shallow incisions in the tense border of the cervix. Then the membranes must be ruptured and retracted above the head or care be exercised to pass the blades within the sac before grasping the head. A failure to remember this important consideration may result in tearing the placenta partially or totally away from its attachment prematurely.

The relative size of the child's head and that of the mother's pelvis must be such that the operation seems to be safely possible for both the mother and the child. We should estimate the size and plasticity of the head; also we should determine that there are no bony or other obstructions to the pelvic canal. These points cannot be determined by external pelvic measurements alone but by determining whether or not the head has engaged in the canal, or can be made to do so by pressure, and by introducing the hand within the cervix if need be.

The head must be of nearly normal size and consistence if we can hope to grasp it firmly with the blades. In excessively large heads due to hydro-cephalus or other causes not only is the resistance too great but the grasp upon it will be insecure because of the divergence of the blades. On the other hand a head that is macerated, perforated or undeveloped will not give a firm hold for purposes of delivery.

The position of the head should be favorable. This is not always possible, however. We cannot in all cases manually correct malpositions before applying the blades of our instruments. Especially is this true after the head has sunk deep into the canal. It is surpris-

ing, however, what can be accomplished in the corrrection of certain mal-positions with the modern instruments in skilled hands.

Finally it is desirable that the head be engaged in the brim or that the biparietal diameter be at the level of the inlet or can be brought down to it by suprapubic pressure. Yet this rule of version before engagement and forceps after is open to many exceptions. Especially is this true since the use of axis-traction has become more universal and its principles more clearly understood.

The indications for the use of forceps fall into two general classifications.

First those due to anomalies of the mechanism of labor, and second because of some complication arising independently of the mechanism.

In the first division we find that primarily the forces may be at fault. DeLee states that in America seventy-five percent of the forceps operations are undertaken because of an insufficiency of the powers of labor after the head has reached the perineum, or even is visible. Experience leads me to feel this is true. A slowing up, or a weakening of the force of the uterine contractions at this stage is not in itself an indication for the application of the instrument and immediate delivery. We cannot condone the early (too early) use of forceps that the physician maye save his own time. If, however, there is no receding of the head between contractions; if impending exhaustion of either mother or child threatens, we are justified in our opinion in proceeding with delivery. Labor is at best quite a serious shock to both the mother and child. Observations and experience have proven to my satisfaction that convalescence here is prolonged, far more stormy and the state of health of the woman after she is up and about much less satisfactory, if she has been allowed to become exhausted mentally as well as physically. When we see what our patient can accomplish unaided by instruments then we should proceed to help her. It is cruel to say the least, and certainly not good obstetric judgment, to delay that we may see how much she can endure.

Then again we may find that the difficulty may be caused by anomalies of the passages. Naturally a very marked contraction, either general or in the antero-posterior diameter, of the pelvis will forbid the use of instruments. A moderate departure from the normal diameters will not of necessity prevent the instrumental delivery of the patient. It is useless to give any fixed measurements as demanding one or the other method of treatment under these circumstances. The whole matter of determining the course to be pursued depends upon the relative size of the pelvis to the size and plasticity of the child's head. The use of axis-traction forceps and the employment of the Walcher position have broadened the scope of the field of forceps very markedly. In marked pelvic contractions or bony growths (or when in doubt) with a living, viable child Caesarean section is indicated as being a better treatment for the best interests of both mother and child. My personal preference for forceps in slight contractions, as opposed to version, is that the force

is exerted in the pelvic axis, and that more time is given for delivery and less danger incurred to the maternal soft parts and the child. In the hands of one who has developed the technique of version to such a wonderful degree as has Potter of Buffalo this manouvre would certainly be selected. I have not his skill.

Another division of the anomolies of mechanism amendable to forcep deliveries is where the foetus is not in the normal presentation; as examples of this are the occipito-posterior and mento-anterior face presentations; breech presentation with the presenting part arrested in the sacral excavation, may also be mentioned. Then again forceps will probably be found superior to other methods in the delivery of the after coming head in certain difficult positions.

In the second division of indications for the use of forceps for complications arising independently of the anomalies of mechanism, we may mention exhaustion of either mother of child, hemorrhage, prolapsus funis, eclampsia, acute and chronic diseases of certain types. In fact any complication of labor in which quick delivery is required in the interest of the mother or child, or both.

It is not intended to prolong this paper by taking up the dangers of the forceps operation. This would also provide a topic for a session's discussion. I would only warn that the dangers are many and grave. The use of this instrument is not a minor operation as one of my professional friends put it, but a major operation of the first magnitude.

In closing this paper I wish to quote Samuel Bard, (Pres. of the Col. of Phys. in the Univ. of the State of N. Y.) from his "Compendium of the Theory and Practice of Midwifery," published in 1819: "The difficulty of using any instrument is much less than that of determining on the propriety of its application. It seldom happens, but that the circumstances of the case allow full time for deliberation; let me therefore again repeat, that as no young man can possess that degree of experience which is necessary to form a clear judgment, in so doubtful a case; and few, that firmness and coolness required to be certain that they are not led by their own apprehensions of danger, by the fears of their patient, and the expressions of alarm from her friends, than by the necessity of the case; it is his duty to obtain the advice of another, if possible, of more experience, but at any rate less influenced by these circumstances."

Discussion

Dr. C. A. Ray, Charleston:

I do not know why Dr. Bloss selected me to open the discussion of his paper, unless he had found out through some of my friends that I am a man with a very limited experience in the use of forceps.

I heartily concur with Dr. Bloss' paper in the indications for the use of forceps. In my experience of thirty-five or more years in coal field practice I have found it necessary to use forceps but a very, very few times. As Dr. Bloss said, it is a very serious operation. I consider it one of the major operations that we have to do, and before doing it it should be thoroughly and absolutely indicated. My experience has been that version has answered my purpose more times than has

forceps. I have used forceps a great many times, comparatively speaking, though less than other people. The most important part about it is the careful use of forceps. When I first started to practice obstetrics I thought I had to use forceps in every few labors, but I found once or twice, when I thought I had performed the operation very successfully and the delivery was over, that my forceps were not all right, and were not what I thought they were. So after that, when the time came for me to use forceps, I tried to be sure that I had made a correct diagnosis, that the forceps were properly placed, and that I took plenty of time. As Dr. Wise has said, there is nothing with which you can do more damage to the mother than by being in a hurry with the use of forceps. It is better to take an hour to deliver a child with the use of forceps than it is to hurry through with it.

* * *

Dr. S. D. H. Wise, Parkersburg:

In 1907, when I was living out in California, I was thinking on the subject of forceps. I suppose I figured two or there weeks, and finally developed this. The reason has already been stated—the instrument is a godsend to a woman, but can be used in such a way as to be in the hands of the devil, because some men are in too much of a hurry to get through. This instrument has a very limited field. I was out in the country, with a case of eclampsia, and never had such a time dilating the cervix. It was one of the most rigid cervices that I ever saw. My fingers were almost paralyzed for four or five days.

In eclampsia you want to get through as quickly as possible. If properly used, if you will introduce that first blade it will bring the cervix over to one side. When you get the second blade here it comes against the head. So you have to dilate the cervix fully before you introduce the second blade. If you have good judgment you might use this; otherwise not. That is why I have never let the medical profession have it. I let the gentleman over there have one last year, but these are the only two I know of. This can be applied so much earlier, and that is the advantage, but if you have no judgment you should not have one at all. If you move the instrument up and down, or from side to side, you may cut a slice on each side of the vagina. You have to be very careful about it.

* * *

Dr. J. Howard Anderson, Marytown:

I think the manner of traction made upon a pair of forceps is very important. I have a pair of Simpson's forceps, the blades of which are perforated. I take and thread through those perforations a strip of two and a half inch bandage, just ordinary gauze bandage, doing it, of course, before I sterilize the instruments. Often I have a finger down to prevent injury to the head. Then I use the gauze bandage to produce the traction, instead of the handles. If you do this, and use too much force, it will give way—that is, if you use the two and a half inch bandage. The bandage comes in contact with the soft parts of the vagina, and will give as the muscles give. As a result I have never been called upon to use a Tarnier's forceps. All the pulling is

done absolutely upon the bandage, and I find it of a great deal of help to me in delivery.

* * *

Dr. Harry G. Steele, Bluefield:

I enjoyed Dr. Bloss' paper immensely. I like to hear papers that are based upon actual experience, for very often they are better than those taken out of books.

I want to differ with Dr. Anderson. I do use the axis-traction forceps, and have never found any injury done if you pull them in the right direction. There is no reason why they should injure the soft parts, because they are made in order to avoid that.

* * *

Dr. Bloss, closing the discussion:

Answering Dr. Vest's question after the discussion of the previous paper, concerning an active tuberculosis in the mother, there are several things to be considered. First, Is this the only child? Secondly, How extensive is the pulmonary involvment? It has always been my rule to ask for consultation, and after a conference with my consultants, decide what is the best course to pursue.

Concerning albuminuria the same consideration applies. In my practice I always have my patient come to the office and have my nurse secure for me a catheterized specimen under rigid conditions of asepsis, etc. If this catheterized specimen shows albumin to be present and casts of any type I ask for consultation, and consider what is best to be done. Usually the blood chemistry has been done previously.

Concerning the use of pituitrin I will say that it, like forceps, must be used with great care and judgment. Three to five minims of pituitrin given at the right time in suitable cases, and where it is indicated, will certainly add power to uterine contractions, and will steady them down in cases of irregularity. In many cases I have found that it has produced most happy results where one would be tempted to use forceps. In my opinion it is very much more satisfactory to use small doses of this drug in selected cases, than to subject the woman to the additional danger of operative procedures even though they are easy forcep deliveries. My personal opinion is that the less "tinkering" one does the more satisfactory will be the ultimate results.

As to the question of taking time in delivery with forceps, I heartily agree with Dr. Ray that it is far better to take an hour to deliver a baby than to hurry through, unless there is some very urgent indication to the contrary. I have, at times, taken an hour and a half for a delivery.

Dr. Anderson's forceps with the perforated blade is, I think, a very excellent device. I have seen it used and it is a procedure that will keep a man from doing a great deal of injury. Personally I have not particularly adopted this scheme as I have a number of pairs of forceps adapted to various procedures of an operative character. One of the most satisfactory instruments in my armamentarium is the DeWees axis-traction forcep with perforated blades. I also have one modeled after Dr. Wise's with some modifications as I have adopted his hinged blade to solid blade forceps with the axis-traction handle. Dr. Wise showed me this instrument of his last year, and it appealed to me at once. I sent it all over the country

trying to get some instrument maker to undertake its construction, and finally succeeded in getting the Max Wocher & Son Co. to agree to make it. I find this instrument a particularly satisfactory one where it is indicated, but a man should study the anatomy and mechanism of delivery very, very thoroughly and be sure that he understands the principle of the instrument clearly before undertaking to use it at all.

As to repairing lacerations, I do it at the time of delivery. Of necessity one must carry a lot of instruments, etc., with him on his confinement calls, but results have shown me that it is far better, at least in the class of practice which we meet in our general work, if our repair work is done at the time of delivery. I repair everything I can find, even to the minor mucous membrane tears, as it seems good practice to me to close every avenue of possible infection in advance. There is another thing about the repair of lacerations which I have found to work very satisfactorily, and that is closing them up in layers, just as you do an abdominal wall. I do not take through and through sutures, but use catgut and approximate each layer of the tissue of the perineum. Final results have certainly justified, in my work at least, the additional time and tediousness of this procedure.

In regard to indications that physicians cannot be blamed for everything, a worse thing happened to me than that reported by Dr. Wise. The man and wife had intercourse the day after the baby was born, and she had a temperature of 105 in consequence, and a very stormy convalescence. This certainly could not be attributed to carelessness or neglect on the part of the medical attendant.

In closing I would emphasize that you must not use too much force when using instruments. You cannot pull and haul and swing and tear. You can, however, with great care, exert a strong pull without injury to the child or mother.

THE DIAGNOSTIC SIGNIFICANCE OF PURPURA WITH THE REPORT OF A CASE OF PELIOSIS RHEUMATICA, OR SCHONLEIN'S DISEASE.

Read at Fifty-sixth Annual Meeting of West Virginia Medical Association, Beckley, June, 1923

By DR. R. A. IRELAND, Charleston

The reason for choosing the rather unusual subject of the Diagnostic Significance of Purpura was to form the background for the report of an unusual case. Dr. William Osler reports having seen only two such cases in his medical experience. This case that will be discussed was turned over to us by Dr. J. E. Cannady without a diagnosis being suggested or advice being given, except to cure the patient.

When we were properly introduced we inspected our man and found nothing to tie an idea to except a slight temperature, some rheumatic pain, and a considerable purpuric eruption.

In reading we found that Adami mentions Purpura as being present at times in the following conditions:

A — Essential Purpura, under which he classes peliosis rheumatica, or Schonlein's disease, purpura simplex, purpura urticans, and scorbutus.

B—Symptomatic Purpura, under which he classes that seen in typhoid fever, variola, scarlet fever, measles, sepsis, typhus and icterus gravis.

C—Cachectic Purpura, associated with pernicious anemia, Bright's disease, leukemia, and carcinoma.

D — Toxic Purpura following snake bite, the ingestion of phosphorus, antipyrene, or copaiba.

E—Multiple sarcoma of blood vessels.

F—Neuropathic Purpura, (hysteria stigmata).

Following our study still further we found that Stelwagon in his Eighth Edition of Diseases of the Skin defines Purpura as "a hemorrhagic affection characterized by the appearance of variously sized, usually non-elevated, smooth, reddish, or purplish spots or patches, not disappearing under pressure, and generally accompanied by systemic disturbance of slight or severe nature." "It is customary," he says, "for the sake of convenience, to divide the cases into three classes or varieties, denoting respectively the mild, the moderate, and severe grades: i. e., purpura simplex, purpura rheumatica, and purpura haemorrhagica." This division is to a great extent an arbitrary one, as merging cases are not uncommon.

Stelwagon's classification differs considerably from that of Adami, although in their discussions they are not so far apart.

In many cases of purpura hemorrhagica the symptoms are alarming, and, of course, many die.

Purpura simplex is mild and rarely accompanied by any systemic disturbance.

Purpura rheumatica, or arthritic purpura presents itself in several varieties. The most common is that with cutaneous lesions with the addition of rheumatic pains and sometimes swelling about the joints.

Another variety of the rheumatic form is that known as peliosis rheumatica, or Schonlein's disease. Stelwagon says that it is rare, that he has soon only one case with necrosis. He says the constitutional symptoms are often alarming, the temperature elevated, the urine often diminished, and occasionally there is endocarditis and pericarditis, and in rare instances necrosis and sloughing of a portion of the uvula.

Osler says that purpura is a symptom, not a disease, and that with our present knowledge a satisfactory classification cannot be made. But he makes a classification: symptomatic purpura, arthritic purpura, and purpura haemorrhogica, and says that Schonlein's peliosis, which comes under his second classification, is thought by some writers to be of rheumatic origin—but by many it is regarded as a special affection, of which the arthritis is a manifestation analogous to that which occurs in hemophilia and in scurvy.

Dr. Thomas E. Buckman, of the Boston City Hospital, reported in the Medical Clinics of North America under date of March 1922, four cases representing as many different types of purpura.

The first case was a male child two years old who developed a spontaneous hemorrhage from the nose that assumed alarming proportions. The bleeding time, the coagulation time, character of the clot, and absence of platelets established the

diagnosis of purpura hemorrhagica. Purpuric spots did not appear until twenty-four hours later. Transfusions of whole blood were reported to have at least temporarily saved the day for this youngster.

The second case was a girl three and a half years old. She had an acute respiratory disturbance with slight sore throat that was followed in one week by a crop of purpuric spots on the forehead. Then the purpura began to appear on the shoulders, the buttocks and other parts of the body. Enlarged glands were manifest in the neck, the axillae, groin and elsewhere. The spleen was slightly enlarged, soft and not tender. The blood examination established the diagnosis of lymphatic leukemia. Of the treatment, Dr. Buckman said X-Ray or radium might be tried but would do no permanent good. Transfusion would temporarily arrest the purpura, but would not otherwise influence the disease.

I cannot help but digress here to report the status of a case of lymphatic leukemia reported by myself in the Journal of the A. M. A. under date of Sept. 11, 1915. My diagnosis was concurred in by Dr. John Rurah, of the College of Physicians and Surgeons, of Baltimore, and Dr. Walter J. Baetjer, of the Hopkins. Our treatment in that case in 1913 was X-Ray and neosalvarsan, and the patient is today quite well.

The third case reported by Dr. Buckman as representing a type of purpura was that of a girl eight years old. She became pale and complained of breathlessness and weakness. Purpuric spots developed over the shins and lower abdomen and the next day a hemorrhage from the nose occurred. The blood count showed the cessation of activity of all the myelogenous elements and established a diagnosis of primary aplastic anemia.

The fourth case reported in this series was in a boy seven years old. One morning he awakened with severe pain in the region of the umbilicus, and soon after he vomited. The vomiting helped the pain but did not stop it. Next day he passed a stool with occult blood. At this time there appeared several purpuric spots over the abdomen and two quarter sized hemorrhagic blebs over the right tibia. The blood count including the platelets, was normal, the coagulation time was thirty minutes, and the clot poorly formed. This was said to be idiopathic purpura.

Dr. John H. Arnett of the University Hospital, Philadelphia, says in his discussion of his case reported in the Journal of the A. M. A. of April 21, 1923, that he hopes he will soon find a way to drop the word "idiopathic." His case of purpura was another in which the blood picture was normal. A histologic examination disclosed acute inflammatory changes in the skin. The tourniquet test showed capillary permeability. He suggested for his case the diagnosis of "primary telangitis with purpura." Fortunately his patient was not very ill.

A prominent Frenchman reporting from a maternity hospital in Paris says that the most frequent cause of purpura in children is inherited syphilis, next in order is pneumococcus or meningococcus, septicemia, but in a number of cases it is impossible to detect the cause. These are the fulminating, the acute

forms, with negative bacteriologic findings.

Dr. Warefield T. Longcope of the Presbyterian Hospital of New York, reported a number of cases in the Medical Clinics of North America in Sept. 1919. His cases are of interest chiefly because of the hemorrhagic areas found in the brain and elsewhere at autopsy. They were all of the kind called purpura hemorrhagica. His treatment was blood transfusion.

During the influenza epidemic of 1920 and since that time I have had a few cases of purpura associated with influenza. These eruptions have most often been on the lower extremities. One case in a man thirty-eight years old, followed endocarditis and myocarditis which in turn had followed a severe case of influenza. The extent of the eruption in this case was most remarkable.

Going back to our patient—We found a fairly well nourished man of thirty-two years. He was born in Syria and came to this country twenty-three years ago. His father died at the age of fifty-nine. His mother was living at the age of 55 and was well. He had two younger brothers living and well. There was nothing in the family history of any interest in the study of the case. The patient had no past history of interest except that nine days previous he had been operated on for inguinal herna. The recovery was uneventful. There was no induration at the site of the operation, and no tenderness more than is expected at such a time. The convalescence had been normal in every way for nine days following the herniotomy.

On the day of the visit described the patient developed a sore throat. The inflammation was not confined to the tonsils, but on the other hand seemed to be more marked on the pillars of the tonsils, and on the uvula. A throat culture revealed a streptococcus infection. A blood culture at that time was negative. A blood count showed hemoglobin 65, red cells 3400000, platelets 150000, white cells 14000, polymorphonuclears 80, small lymphcocytes 12, large lymphocytes 5, transitionals 3. The urine was scanty and showed no albumin.

Argyrol was used in the nose and throat and salicylates were used freely.

About three days after the sore throat developed we discovered an endocarditis. The pulse rate went up to 130 and the temperature as high as 102^6. The temperature fluctuated for about eighteen days between 100 and 102^6, and the pulse varied from 112 to 140. The patient became delirious and developed incontinence. These conditions persisted for about eight days. During these days he did not average taking more than 300 calories of food per day in the form of milk and broth. His emaciation was extreme.

At about the time the endocarditis developed a necrosis was showing along the margin of the uvula. Dr. Alfred Friedlander of Cincinnati was called in consultation and said that we had a very interesting case. He advised arsenic as an alterative and strychnine for the arrythmia that had developed.

Dr. Phillips of Charleston was put in charge of the throat condition and ordered irrigations with 1 to 6000 solution of potassium permanganate. In addition orthoform was blown into the throat. The

margin of the gums was painted with silver nitrate solution.

In the beginning of the fourth week of the illness we began to feel easier. The temperature and pulse had come down and the throat showed improvement. An old fashioned iron, quinine, and strychnine tonic was ordered and the patient's appetite improved. At the end of six weeks from the beginning of the temperature and eruption, both had disappeared and the patient was able to leave the hospital.

At first he was only able to get a thin dime between his teeth because of contraction of the scar tissue in his throat and at the angles of his jaw. After a wisdom tooth was pulled and Dr. Phillips had divided the offending tissue, conditions approached the normal.

After using all the sane methods and tricks we could learn about, including mental suggestions to the patient—as a result of our efforts or in spite of them—the patient got well. We say "well" because now at the end of two years the heart murmur has practically disappeared, the throat looks normal except for the absence of the uvula, and part of the soft palate. He has regained almost his former weight. More than a year ago he was married and now has a very healthy baby.

It seems true that a large percentage of cases of purpura are the result of some insidious infection, and so are not to be classed under the name purpura.

In the special case reported today the infection probably entered by way of the throat.

We are only beginning to learn about bacteria. There are many families of streptococci that are now classed as one family, and the same is true of other groups.

It is fitting that the medical men should learn more than in the past to guard their patients against infection, and teach them more the value of stored-up resistance.

Discussion

Dr. G. H. Barksdale, Charleston: For a number of years past it has been the general custom in the practice of medicine, and rather a fad, to group a large number of diseases under one etiological head, which has gone a long way toward clarifying some diseases. At first glance it would seem that purpura should be classified in this way. However, for a common, everyday, working hypothesis, I believe it would be proper to speak of purpura, as it is evidenced by the marasmic child or the more or less toxic individual, with the person who has been shot —that is, the blood vessels are leaking. In purpura we have a distinctly altered blood condition, as evidenced by the altered vascular condition. Hemorrhage is inevitable when the number of blood platelets has sunk under sixty thousand. It is rather amusing to find that the normal blood platelet count is given as 250,000 to 400,000. In Schonlein's disease we have no alterations in the blood picture—the coagulation time is not altered; the blood platelets are not reduced; the one pathology is in the smaller blood vessels. The interesting feature to me about this latter condition is that probably two forces are at work here, one the rheumatic factor and the other the purpuric factor. From the fact that urticaria is so commonly associated with this condition and certain conditions throughout

the whole body compatible with angioneurotic edema, would make one think that there is probably a anaphylactic reaction in this Schonlein's disease which accounts for the rheumatic reaction and the purpura. ————speaks of obscure diseases such as hemorrhage into the kidney, obstruction of the ureter, even obstruction of the bowel, passing of clots, etc., and at postmortem the only condition found was purpura. The point I want to bring out is the purpura on the skin, the angioneurotic manifestations in the kidneys and elsewhere. Purpura is a rather loose term, and these different purpuric conditions probably bear no relation to each other at all, in that they have not the same etiological nor pathological findings.

* * *

Dr. J. E. Cannaday, Charleston:

This is a rather severe case of purpura hemorrhagica reported by Dr. Ireland. This man came to me saying he had a rather large inguinal hernia which had ruptured. He appeared to be in good condition, but shortly after the operation he developed purpura. There was nothing connected with the operation, so far as we could tell, that was responsible for his severe illness.

* * *

Dr. R. D. Roller, Charleston:

We know that certain asthmatic conditions are due to protein poisoning, and we know that certain skin conditions, such as eczema, are due to protein poisoning. As a conquence there has been somewhat of a swing away from bacterial infections in these purpuras, and it has been thought that there may be the possibility of a protein reaction here. In horse serum reaction you have purpura, and there is no reason why these primary or so-called idiopathic purpuras should not be caused by protein poisoning.

There is another point. These cases are apt to recur, and quite a number do recur more than once in the same individual. I do not think you have a very frequent recurrence of Schonlein's disease, because that is very infrequent. Christian, of Boston, has gotten away from the idea that there is any change in the blood vessels at all.

Another interesting point is differential diagnosis. In Henoch's purpura, which is another form of Schonlein's disease, but with the joint symptoms much more pronounced, the diagnosis of purpura has been made.

* * *

Dr. Hugh G. Nicholson, Charleston:

I wish to report a case of Schonlein's disease which I treated nine years ago. It was in a boy about five years of age, the child of intimate friends of mine. The boy had rheumatism, and went for several months without treatment. Finally they consulted me. His tonsils were full of pus, and I advised them to have them removed. This was done and the child got better. Several weeks later he developed fever. There was an epidemic of influenza and I was in bed, so they called in a colleague of mine. When I got well I was called into consultation. The child had developed purpuric spots over the abdomen and was passing blood. The liver was increased materially in size. Then he developed pneumonia, and died in three or four days, our diagnosis being Schonlein's disease. Upon au-

topsy the abdominal cavity, the chest cavity, and every cavity in the body was found filled with blood. I do not know whether it was Schonlein's disease or purpura hemorrhagica.

* * *

Dr. Ireland, closing the discussion:

I shall not go into this any further, except to remind you that this man is here and I shall be very glad to have you look at his throat, so that you may see the results of the necrosis. So far no one has explained why there should be a necrosis in the uvula. I have a theory that it may be due to obstruction of the minute blood vessels, thus cutting off the supply of blood.

ENDOCARDITIS AND ITS IMPORTANCE AS A COMPLICATION IN INFECTIOUS DISEASES.

Read at Fifty-sixth Annual Meeting, West Virginia Medical Association, Beckley, June 1923

By DR. C. A. RAY, Charleston, W. Va.

Mr. President and Members of the Association:

When I was informed by the secretary of our county society that I was to present a paper on Endocarditis, I approached the subject in a spirit of apology to the Association for taking its time, but after some consideration I am inclined to apologize for having neglected such an important condition. Let me emphasize this importance by observing that 95% of all organic heart lesions were primarily acute Endocarditis, 50% of which were unrecognized or overlooked by the attending physician at the time when much good could have been accomplished. The endocardium, a thin fibrous membrane covered by a delicate layer of endothelium, lining the inner surface of the heart, folding into layers to form the different valves and extending on into the great blood vessels, being contracted, expanded, and twisted with each revolution of the heart's action 70 to 80 times per minute, 24 hours a day, never resting nor hesitating, and at the same time being irritated by the organisms of all the infectious diseases and especially being literally sandpapered, as it were, by the organisms of syphilis, gonorrhea, and acute rheumatism.

While little space in text-books is devoted to endocarditis, volumes have been written about organic lesions. It is very interesting to study organic heart lesions, locate the different murmrus, watch their progress, and correct decompensation, but the most important period for treatment is the time when prophylaxis will get results in acute inflammation of the endocardium. A half dozen lines would describe a typical or classical case of endocarditis, but I am going to take a little more of your time.

Endocarditis can hardly be classed as a disease itself for the reason that it is a symptom, complication, or sequel of some other disease. An inflammation of the endocardium either acute, chronic or supperative, usually is confined to the valves though the cardiac layer may be effected. In the acute form the disease is characterized by small vegetations on the segments near the margin of the valve and the chordae tendinae, the mitral valve more often effected than the aortic, the

left side of the heart more often the seat of inflammation than the right except in fetal life. These vegetations offer an obstruction to the flow of blood through the valves and provide a field for the growth of micro-organisms. The most frequent cause of acute endocarditis is acute articular rheumatism, and it is well to bear in mind that the endocardium, composed of the same tissue found in joints, may and does become involved in a case of acute articular rheumatism as often as any other joint in the body.

The severity or mildness of the rheumatic attack does not influence the cardiac complication. The arthritic phenomena may be a secondary feature. I feel that I cannot lay too much stress upon this phase of the condition, and at every visit to your patients who have an acute rheumatic arthritis, you should satisfy yourself that there is or is not an endocarditis actually present or impending. A good Bowle's stethoscope and a quiet room will often disclose a soft, blowing murmur when the usual symptoms and superficial examination would indicate otherwise. In repeated attacks of acute tonsillitis the endocardium is often involved. The specific fevers, such as Scarlet fever, Diphtheria, Erysipelas, and the more serious forms of Chorea, cause endocarditis, and few cases of the latter recover without some involvment of cardiac tissues. All cases of acute endocarditis are micro-organismal and any one of the various micro-organisms may cause it.

The clinical history and clinical signs of acute endocarditis are indefinite and irregular. Precardial pain extending down the left arm, cardiac palpitation, and dysponea are sometimes complained of. The existing temperature is suddenly elevated and the pulse is more rapid and weak. There is a visible impulse but it may vary at each visit and will become weak and indistinct as the myocardium becomes involved. There is little or no variation in the cardiac dullness as there is no enlargment. There is, in acute endocarditis, a soft blowing systolic murmur at the apex, but this is not always the case, and when the acute inflammation arises in connection with chronic valvular diseases, there is but little change in the murmurs during the acute exacerbations. The soft blowing murmur heard in acute febrile diseases are heard principally over the aortic and pulmonary areas. The association of pericarditis and endocarditis, especially in rheumatic fever should always be kept in mind, and no less important is the involvment of the myocardium as a part of the pathological process with its distressing symptoms of syncope, small, rapid, compressible, and arrythmic pulse, and cardiac palpitation, low blood pressure and veinous stasis.

From practically the same sources of acute endocarditis is due the type designated as malignant or ulcerative endocarditis, which, however, more frequently follows pneumonia, puerperal septicemia, gonorrhea, and smallpox or some type of infection due to a streptococcus organism. The valves and the walls are involved in the process, the vegetations becoming necrosed and forming abscesses which rupture, the contents finding lodgment in various and remote parts of the body. These infarcts cause all kinds of symptoms accordingly as they develop in the different organs. In

fact, local or heart symptoms are sometimes entirely wanting and we are prone to change our diagnosis at each visit. Pulmonary or cerebral symptoms one day, gastro-intestinal or renal another, the rigors, high temperature and sweats of hectic conditions, arthritis, delirium, eruptions, and hemorrhage, go to make up the history of ulcerative endocarditis, which you are liable to meet at any time when you are treating infectious diseases.

The types as designated by many text books are recurrent, malignant, or that form which develops in the course of valvular disease; the cerebral type in which meningeal symptoms predominate all others to the extent that the real seat of the pathology may be overlooked; the typhoid type, the clinical history of which is so similar to that of typhoid fever that a differential diagnosis is most difficult and requires much time and all of our skill and resources. Typhoid condition of the old writers must have had its origin in cases of supposed typhoid fever when they were really ulcerative endocarditis. In the old days when we were prone to treat typhoid fever with all kinds of drugs and nostrums, starvation and torments of thirst, instead of treating our patient and letting the fever take care of itself as we do in this age, I must confess that I have seen a few of them, after lingering for weeks and weeks, pass into the typhoid condition, and as I look back over years of experience I am not quite sure whether all of them would have shown a positive Widal.

To summarize, permit me to refer to the title of this paper, Endocarditis and Its Importance as a Complication in Infectious Diseases. It is an inflammatory process involving the most important organ of the body, liable to develop suddenly or come on insiduously at any stage of the infectious diseases as a result of that particular micro-organism. Often the symptoms are vague and difficult of recognition until much damage has been done to the heart. It may be acute, chronic, or suppurative. It is the primary factor in all chronic heart lesions and the greatest therapeutic results are obtained by its early recognition and treatment. I do not presume to advise you how to treat an endocarditis, and offer but one suggestion, and that is, absolute rest in bed, long after the symptoms have subsided, and if you are to ward off subsequent attacks and obtain good results, you cannot insist too strongly on this prolonged rest.

Discussion

Dr. A. P. Butt, Elkins:

This is a most important paper, and should be discussed. We are all going to have endocarditis, though we are not all interested in operating room technic.

I am going to bore you with a case of my own. My first boy I diagnosed as a case of endocarditis. I kept that child three months on his back, or at least in bed. That was several years ago. Three weeks ago he spent three days, or a week, going through Dr. Barker's clinic, just to see how he is. As you know, most men say that endocarditis is incurable. I received quite a volume from Dr. Barker on the case, which I might sum up as follows: "The books say it is incurable; he has had it; so it must be there, but

I can not find it." Apparently the boy is perfectly well, and I attribute it all to rest in bed.

* * *

Dr. O. B Lynch, Beckley:

Dr. Ray spoke of the importance of acute articular rheumatism as a cause of endocarditis. It is important to remember that in childhood articular symptoms may be insignificant or entirely absent. The child may have nothing more than "growing pains," and yet the cardiac involvement may be great. It is not the murmur about which we should be particular, but the state of the cardiac muscle. Is there dilatation? After all, the important thing in childhood I believe is as Dr. Ray indicated for endocarditis in general, a period of rest—ample, to be sure, but remember that the child is growing and that you may induce a fear and a state of chronic invalidism by stressing too much the murmur. Only the other day a child was referred to me with the idea that there was a mitral regurgitation. The parents were afraid that the child would drop dead. There was a mitral murmur, but there was no cardiac enlargement. Another thing to remember is that mitral regurgitation is often mistaken. Cardiac disease in childhood is uncommon before three; relatively uncommon before five. The incidence is greatest at from seven to nine. We want to remember also, I think, the relationship existing between tonsillitis and rheumatism, also the relationship existing between the so-called cerebral rheumatism—chorea—and it is important to bear in mind the tendency to recur. When a child has had an attack of endocarditis or rheumatism, no matter how well the child seems to be it should be under observation and should be examined from time to time.

It is well to remember that exercise at the appropriate time is indicated, but watch for signs of cardiac failure. Pay less attention to the murmur, and more attention to the cardiac muscle.

* * *

Dr. A. A. Shawkey, Charleston:

We shall probably hear in a few minutes that in children with an obscure temperature that can not be explained we are likely to have an infected kidney, and that is true, but second to pyelitis as the explanation of an obscure temperature is a beginning rheumatic endocarditis. Not infrequently we find in a very young child a temperature not otherwise explained. The child is simply sick, a little pallor, not quite itself, no pain, no murmur. But watch it two or three weeks and you will find a slight murmur and often endocarditis. In young children the pain element is absent often for quite a long time. When you have a little temperature that you can not explain, after you have ruled out pyelitis look out for rheumatic endocarditis.

* * *

Dr. Robert T. Morris, New York City:

This is a most interesting paper. I would like to cite one case, a boy ten years old whom I saw last March. A history was given of his having been practically well and happy up until the present illness, which began about March first. The mother said that he had a mild attack of influenza. So far as I can get it from the history it was influenza, and not rheumatism or anything else. The doctor saw the boy

once during the attack, but the child seemed to get on all right and they did not call the doctor again. After he got up he began progressively losing weight, and began to vomit rather frequently. He was brought to me on account of the vomiting. I made out mitral and tricuspid regurgitation, and have had the boy in bed, on absolute rest. The vomiting very shortly stopped. That was practically all the treatment, except that I restricted his diet and gave a little digitalis. He did very well for a while, but is getting worse all the time and now has general anasarca. We tapped him the other day and got quite a lot of fluid, but there is nothing we can do now. This case emphasizes the value of proper examination. If the doctor had seen this boy before he got out of bed with influenza, and had discovered the endocarditis and instituted proper measures then, I believe he would have had a chance to get well.

I want to emphasize also that we must not pay too much attention to the murmur. Dilatation, the rate of the heart, rhythm, etc., are far more important than the murmur. The main point is to examine all cases thoroughly and do not let them get out of bed too soon in any condition which may involve the endocardium.

* * *

Dr. Ray, closing the discussion:

I could stand up and talk all day about the symptoms of endocarditis, etc., but the object of my paper was to point out the importance of recognizing endocarditis in the beginning. The treatment will take care of itself.

PYELITIS

Read Before Raleigh County Medical Society, Beckley, W. Va., April 5, 1923

By D. B. JARRELL, M. D.

PYELITIS is entirely distinct from the so-called surgical kidney or suppurative pyelonephritis. It must be differentiated as well from suppurative nephritis and pyonephrosis. Pyelitis at first is unilateral as a rule, and consists of an inflammation of the lining membrane of the pelvis of the kidney, usually associated with a dilatation of the same and congestion of the Parenchyma of the kidney, causing an enlargement of the organ with an engorgement of the blood vessels.

ETIOLOGY, one of the most frequent causes of pyelitis, is due to obstruction to the flow of urine from the kidneys to the bladder. Under this we have the movable kidney, causing a kink in the ureter, stricture of the ureter both internal and external, pressure due to abdominal tumor and pregnancy. In the acute infectious diseases, whether the local inflammation is due to micro-organism, toxins or alteration in the urine has not been determined. Traumatism a rare, but an undoubted cause. Exposure to cold, drug irritation, nephritis especially interstitial nephritis. Chronic valvulitis, perinephric inflammation, mechanical irritation, calculus, malignant disease, parasites, and most important of all, cystitis, particularly when it is associated with obstruction. The micro-organisms that commonly cause pyelitis are of the colon group. Micrococcus aureus, streptococcus pyogenes, the gonococcus, the bacillus typhosis, the di-

plococcus pneumonia, the bacillus of Friendlander, tubercular bacillus, actinomyces, and the micro-organisms of the acute infectious diseases.

PATHOLOGY—Acute pyelitis as said above is usually unilateral, but may be bilateral or become bilateral. This condition varies in degree from a superficial catarrhal inflammation to a deep infiltrating destructive process. In the absence of infection there is often a congestion of the mucous membrane of the pelvis of the kidney. Unassociated with desquamation of epithelium or suppuration, such a condition may be caused by an irritating condition of the urine. Pyelitis may be acute or chronic. In the acute, the mucous membrane is swollen and congested, there are patches of dequamation; in severe cases the surface is covered with thick mucous mixed with blood in which the crystals of the urinary salts are deposited. In chronic pyelitis the mucous membrane is dark in color, there is a serous infiltration of the submucoid tissue, with interstitial overgrowth, many small mucous cysts may be formed, and in some cases the lymph-follicles become much enlarged and prominent. The surface is often covered with a tenacious altered mucous, and there is a general desquamation of epithelium. Ulceration may be present, which may extend through the coats of the pelvic wall, giving rise to abscess or even to infiltration of urine.

SYMPTOMS—In many cases, as is evident from the list of causes, the symptoms of pyelitis are lost in those of the antecedent disease. In simple congestion of the pelvis of the kidney, pain in the loins and frequent urination are the only symptoms. In acute catarrhal purulent pyelitis the pain is often severe, and may present acute exacerbations; the kidneys are tender on pressure, and frequency of urination is marked. The quantity of urine is usually decreased, and exceptionally reflex anuria may supervene. The pain is increased by motion, by deep respiration, or by coughing, and may be reflected down into the penis and testicle or up towards the shoulder. Vomiting is not uncommon. Fever develops, and there may be chills followed by profuse perspiration. As a rule, the kidneys though tender, are not enlarged in acute pyelitis. The urine is generally acid, and contains a trace of albumin, degenerated epithelium, pus and often blood and hyaline casts.

DIAGNOSIS—Pyelitis must be distinguished from renal and from vesical inflammation. In pyelitis the albumin is dependent upon the blood and pus, in nephritis it is essential. Granular casts are usually present in kidney disease, they are not found in pyelitis. The large amount of nucleo-albumin is quite distinctive of pyelitis. The leucocytes in the urine of nephritis are often mononuclear, those of pyelitis are polynuclear. The pain of nephritis is insignificant, while acute severe pain occurs in nearly all cases of pyelitis. The differential diagnosis between pyelitis and pyonephrosis, or pyelonephritis, or acute suppurative nephritis is in some cases impossible, though the greater tendency to marked constitutional symptoms and palpability when the kidney proper is involved usually serves to differentiate the latter from pyelitis. A complete urinalysis with cystoscopic examination and ureteral catheterization will

show which kidney is involved or both. By this method you are able to obtain a specimen of urine from each kidney and isolate the organism present; also by the catheterization of ureters a functional test of each kidney can be done, estimation of the output of each kidney separately giving some idea of the excretability of the kidney. Phenolsulphonephthalein is the best test for the estimation of the function of the kidneys. Also while the ureters are catheterized, sodium-iodide can be injected into the pelvis of the kidney and an X-Ray taken. By means of the pyelogram so obtained, the configuration and outline of the collecting portions of each kidney, as well as of the ureter, can be accurately seen on the plate and compared with those found under normal conditions. In this way the diagnosis of such conditions as renal tumor, polycystic kidney, nephrolithiasis, hydronephrosis, and nephroptosis is much facilitated. Under proper precautions there is no harm done to the kidney by such examination, and the results are so very important that the discomfort occasionally caused is well worth tolerating.

TREATMENT — The treatment of pyelitis varies in accordance with the cause, and is also dependent in a measure upon the character of the inflammation. Slight cases, such as those which develop after the exanthemata, are treated by rest, liquid diet, and the ingestion of diluents. The natural tendency of this form of inflammation is towards recovery. When the symptoms are sufficiently severe to excite some constitutional reaction and to cause local pain, counter-irritation, local depletion, hot baths, the administration of soothing or stimulating diuretics, and careful attention to the condition of the skin are indicated. Pain should be relieved by morphine given hypodermically. Inflammation due to mechanical causes, such as calculus or stricture, prostatic enlargement, or any obstruction to the free flow of urine, can be cured only by surgical intervention. Should this become necessary in the course of acute pyelitis, it must be borne in mind that there is always great danger of converting a simple pyelitis into a pyelonephritis or "surgical kidney." A great many of these cases will not respond to the above treatment and require introduction of the cystoscope, catheterization of the ureters and injection of the kidney pelvis with a 2% silver nitrate or 25% silvol or argyol will usually clear these conditions up within a short time. Some cases require only one treatment, others from two to three.

BOOTLEGGING

Read Before the Eastern Panhandle Medical Society at Martinsburg, W. Va., June 13th, 1923

By DOCTOR W. W. BROWN
Shenandoah Junction

Bootlegging—Irregularity—Illegitimacy—is a problem that confronts all trades and professions. It is a menace to the church in the effort to overthrow her doctrine and occupy her pulpit. It is a parasite in the attempt to subsist on the body of the medical profession. The law only escaping; that elect and fortunate profession.

I shall refer, however, only to matters affecting and infecting the

medical profession. Starting out with the declaration of "every one to his own business," and under this heading will second the proposal that there should be added to the President's Cabinet a Department of Health presided over by a doctor of scientific attainments and practical knowledge—a "dirt farmer" of the profession, with a bureau of scientific experts—biologists, sociologists, criminologists, etc. A man of this fitness could be easily obtained, I am sure, and I am equally certain he could be found among the efficient and popular West Virginia State Board of Health, if the proper pressure—high blood and blood boiling pressure — were brought to bear.

Problems of the State — In the sense that the function of the State is to look after the morals and health of the people and in the further belief that the medical profession is the proper channel through which these problems can be solved.

I, therefore, will confine my remarks to the consideration of these problems only, the first one being:

The Drug Peril

We know that the management of this problem is mainly in the hands of the "social uplifters"—a bunch of well-meaning impracticables—and we know what a mess they have made of it, as we know full well that the consumption of these habit forming drugs has not been lessened and we are not ignorant of the fact that their sale through the regular and legitimate channels of trade, has been materially lessened and that the bootlegger is enriched through his criminal acts and practices. How are we to alleviate this trouble is the question before us, as it is questionable whether punishment of this criminal bootlegger is the proper method. We have two classes of addicts — the degenerate criminal and the innocent victim. The ones who are addicts through weakness and those through wickedness—each requiring different treatment and management. The best solution of this problem, as I take it, can be done through the efforts and power of the League of Nations, as one of the functions of the League, besides the prevention of disease, is to limit the growth of the popy and lessen the manufacture and importation of opium and its derivatives.

The Drink Peril

Closely allied is the drink peril as twin brothers of evil. The management of this problem is entirely in the hands of the officials of the State and they have failed utterly, as drunkenness has not lessened nor crime diminished. Volsteadism is too radical to conform to the motto of the State of West Virginia, "Mountaineers are always free," and its rigid enforcement as interpreted is neither feasible or sensible. I think our State Prohibition law should conform to the Federal law; so if it should be thought best that whiskey should be used as a medicinal agent—for one's stomach sake and that of his friend's — it should be made under a chemical analysis and dispensed under government authority and protection. I fully understand the importance of the fight if efforts are made to modify the Volstead Act. Three forces would be arrayed against it: the Anti-Saloon Leaguer, the Social Uplifter and the Bootlegger. The first is often a grafter, the second frequently an ass, and the third a criminal always. I mean by crim-

inal, a violator of habits and customs of society. For instance a bull in his master's field, where the pasture is good, the water plentiful and the fence secure is a very amiable animal, and his calves get the premium at all country fairs—but the pasture becomes short, the water dries up, and the fence broken down, and over he goes into the neighbor's field—to become a criminal and to beget criminals. I do not claim that his calves are necessarily criminals but they are under criminal environment. The solution of this problem is to get the animal back into good pasture — but the fence made doubly secure. Still it is worth making the fight as it would mean fewer cases of alcoholism for the doctors to treat and bury and fewer criminals for the lawyers to defend and jail—rather, different forms of alcoholism to treat and different forms of criminology to manage.

The Social Disease Peril

The management of this problem is, I believe, solely in the hands of the medical profession and we are meeting with fair succses. Whilst I have not the figures, I doubt very much if venereal disease is on the wane. True, the doctor may have fewer cases to treat but the bootlegger has more. I respectfully differ in the interpretation of the law —if a common country doctor will be permitted to differ with our State Board of Health—in the use of prophylaxis, as I think the use of these preventives should be authorized to be dispensed through the legitimate channels and not let the bootlegger have all the glory and money; with proper instructions given. For instance, it is said there is less venereal disease among college students than formerly. What is the lesson to learn? Is it the result of a higher morality or of a better knowledge of sexual as well as other matters? The latter I feel sure. It must be remembered that sexual desire is not base—except to the "bootlegger;" that it is an instinct — the strongest one of the body except that of hunger—that can be enlightened and curbed but not subdued.

Nor can I see any good in the law that requires these cases to be reported and to be made public. I cannot see how this can better the morals or improve the health of the people. It must be remembered that while all syphilitics are unfortunate, not all are degraded. I will confess, however, that I am a nearsighted man, with a short and blurred vision.

Just a word in closing: Criminologists tell us that punishment is not the best method to abolish crime —but rather a change of conditions. That conditions make the doper, the drunkard and the depraved.

Then, why not all be willing to join hands, minds and hearts to bring about a more healthy condition? If it be true that the degenerative diseases—syphilis, alcoholism and criminality, for instance— are transmissable, althuogh they may be in some sense acquired diseases; and if it be true that the microbe be the exciting cause of these diseases, then is it not also true that modification or destruction will produce immunity, which is also transmissable? May it not be God's law that the individual be made better and the race of men stronger physically, morally, mentally and spiritually through the lessening of disease and the advancement of human evolution—a man perfect in health and complete in Christ?

THE WEST VIRGINIA MEDICAL JOURNAL

JAS. R. BLOSS, M. D. - - - - - Editor

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Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

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Moundsville, W. Va.,
August 18, 1923.

DR. J. R. BLOSS,
Huntington, W. Va.

Dear Dr. Bloss:

The motion that dues be raised to $10.00 did not carry, but a motion was made by Dr. Steel, of Bluefield. After the report of the committee to audit the editor's report was read by Dr. J. H. Anderson, of Maryton, Dr. Steel moved that it lie on the table for one year and that meanwhile it be published in at least three issues of the Journal. Motion was seconded and carried.

I regret that you did not have the correct proceedings when you made this report.

Sincerely yours,
ROBT. A. ASHWORTH, Secy.

The above is published to correct an error in the August issue of the Journal. It is self-explanatory.

It is sincerely to be hoped that the various component societies will devote a meeting during the time intervening before the next annual session to a consideration and discussion of the needs of the medical

profession and to some constructive planning for the future.

We physicians are continually harping upon the lack of appreciation and consideration shown to us as a profession. Yet we seem to be afraid somehow to try to get together and agree upon anything. When we do manage to thresh a matter out and get some definite plan under way, it seems to fall into a state of innocuous desuetude through lack of co-operation.

One can but wonder why a profession composed of such brilliant minds as the present day physicians possess individually can fail to see the absolute necessity of united action of a definite type and the fullest co-operation.

Our State Association must awaken to the need of a revolutionary change in its policy in regard to the matters of vital concern to our profession ere the time to accomplish results shall pass.

To do this we must expect to pay larger annual dues.

DELINQUENTS

A communication from Dr. Ashworth states that to date TWO HUNDRED AND THIRTY - SIX members "HAVE FAILED" to pay their dues for this year.

This is a particularly sad comment upon our lack of professional interest and co-operation. There has never been a time when it was so necessary for us to be "up on our toes" as now. Yet it seems that twenty per cent of our membership is so uninterested in the welfare of the State Association, and that means the individual member's welfare as well, that they have not paid the small annual dues.

Never has there been such general prosperity throughout the profession, not only in our state but the whole nation, as now. It would seem that under such conditions all the dues should have been paid before this time.

Surely this is just an oversight. The county secretaries are earnestly urged to see the delinquents among their membership personally and endeavor "to get them right."

The Fall meetings are approaching and it is to be hoped that new enthusiasm will be awakened and that all of the men may be induced to come regularly and take part in the meetings. Too many fail to attend and then kick because things are not done as they think they should be.

Not long ago in a friend's office was displayed the following motto:

"Kwiturdambelliakin and get to work."

THE A. M. A. MEETING IN SAN FRANCISCO

The approximately thirty-seven hundred physicians who were able to attend this session of the national association are to be regarded as particularly fortunate.

To start with, San Francisco impresses one as being an ideal convention city. It possesses a large number of hotels, thus insuring accommodations for the visitors. This gives one a favorable impression in the beginning.

Another feature was their great civic auditorium. It is difficult to conceive that under one roof were housed the great commercial exhibits together with large halls for each of the scientific sections, the sessions of the House of Delegates and a hall in which motion pictures

were continuously displayed. Yet all of this was provided. It is needless to say that it added greatly to the interest displayed and the benefit to be derived by those in attendance.

One thing impressed us particularly in this respect in regard to the attendance and that was the large attendance of men engaged in general practice. There was no dearth, of course, of the specialists —the internists, the surgeons, the eye men, et cetera—but by far the greater number were the physicians doing the work as a whole. It was to them especially that the arrangement for the meetings all under one roof appealed, for they could go from one section to another without loss of time.

The only meeting not held in this building was the general meeting at which President Wilbur delivered his impressive presidential address. This was held in the Dreamland Auditorium where more than six thousand were comfortably seated.

It is to be regretted that all of the physicians of the country could not have been present and heard him speak upon the problems confronting our profession as a whole and as individuals. While he is not actively engaged in practice, he certainly gave clear proof of his grasp of the needs of the "men out on the firing line," and was direct and plain in advising as to our duties and our responsibilities in the matter of facing the problems confronting us. It was a wonderful address delivered by a remarkably clear-thinking man in a masterly manner.

That the section meetings were a success was attested by the large attendance present at all of their sessions. The papers and addresses impressed one especially because of the clear manner in which the subjects were presented so as to be of practical value. They were scientific, of course, but in the great majority of instances, it seemed to me, the scientific verbiage had been so pruned that the average man could understand and apply them to his own needs. Far more so than is usual in such a meeting of this character.

The House of Delegates accomplished its duties with dispatch and harmony. The matters coming before it for consideration were more or less of a routine character. West Virginia was honored by having her senior delegate, Dr. Henri P. Linsz, for the chairman of the Reference Committee on Rules and Order of Business.

One would be remiss if the whole-hearted and open-handed welcome extended by not only the physicians of San Francisco but of all California was not given a note of appreciation. It seemed that each one appointed himself a reception committee of one to see to it that we enjoyed our visit. The local papers also gave especial notice of the proceedings and had the meetings covered by special representatives.

It was, altogether, a very wonderful and profitable meeting.

WHAT THE PUBLIC HEALTH SERVICE DOES FOR YOU

In six parts.

PART I. INTRODUCTION

Comparatively few persons think of the State Government as being a part of the United States Government. But of course they are. The Constitution distributed the governing powers between the Federal and the State Governments in such a

way that the exercise by each of its share is almost imperative for the welfare of both. For either to be obliged to get along without the other would be almost as awkward as it would be to a man to be obliged to get along without one hand; he could learn to do it, of course, but he would have a lot of trouble in learning.

This division of authority applies in all fields of public work, including that of public health. Nearly every health activity in the country has both a National and State end, which key into each other so intimately that it is often difficult to decide just how any given piece of health work could best be apportioned between the Federal and State governments.

Theoretically, such a condition should result in disputes that would lead to nothing being done. But in practice the National authorities (U. S. Public Health Service) and the State health authorities have established so thorough an understanding that the problem becomes simple. For instance, a number of cities and the neighborhoods in several States recently wished to get rid of mosquitoes and malaria. By agreement the Public Health Service supplied skilled direction, and the States, counties, and cities supplied money and labor. The mosquitoes were promptly cleaned out with a great reduction in illness, deaths, and doctors' bills and a marked rise in comfort, attractiveness, production, real estate values, and population. Cooperation won the trick.

Similarly in nearly every phase of health work cooperation simplifies the tasks allotted by law.

Broadly speaking, the duties of the Public Health Service are to prevent disease from entering the country and from spreading from one State to another; to suppress epidemics, investigate diseases, disseminate health information, and attend to some others that are more or less incidental.

The most important of these tasks is the prevention of disease from entering the country and from spreading through it. Exclusion of disease (foreign quarantine) was once entirely in the hands of the States, but has gradually been surrendered by them to the Federal authorities, who in the nature of things are much better equipped to manage it.

Prevention of the spread of disease (domestic quarantine) is two sided: the Public Health Service has charge of the State to State spread of disease, and the States have charge of the spread within their respective borders. In practice, however, the Nation and the State officers cooperate freely whenever there is danger of an epidemic becoming especially serious.

Next in importance to disease control is the work of the Public Health Service in research — finding out things—in laboratory and in field and in disseminating information as to what has been found out.

Dissemination of health information is enormously important. Other countries, of course, disseminate it; but they do it chiefly for professional men, doctors, bacteriologists, and not until recently for the benefit of the "man of the street." The U. S. Public Health Service, on the other hand, addresses all the people. Some very technical publications are especially for the benefit of scientists, but by far the greater

part of its publications deal with subjects that interest the everyday man—and with some that interest the everyday youth.

It disseminates information concerning new investigations, new discoveries, and new methods, by means of printed books, newspaper articles, radio broadcast, public lectures, demonstrations—and school children. Dissemination by children is very important; for when children learn a thing they can be relied upon to educate their parents.

The task of State health authorities, on the other hand, is to collect vital statistics (records of births, deaths, diseases, etc.); to prevent disease by vaccination, inoculation, and house quarantine of the sick; to supervise drinking water, milk, food, sewers, street, sanitation, school sanitation, etc.; to inspect factories, workshops, etc., and in some States to provide school nurses and school physicians.

Broadly spreading, the U. S. Public Health Service finds out things and the State and local health authorities apply them; though, of course, the State and local organizations find out a good many things and the Public Health Service applies a good many. Whichever way they work, they work together and get the maximum efficiency.

Dr. T. W. Moore calls our attention to the fact that in the outline of the history of West Virginia State Medical Association, by the Raleigh County Medical Society, issued a few months ago, that he is listed among the DECEASED presidents. The doctor tells us that he would like to say with Mark Twain that the report of his death has been greatly exaggerated.

COUNTY SOCIETY REPORTS

BARBOUR-RANDOLPH-TUCKER MEDICAL SOCIETY

The Barbour-Randolph-Tucker County Medical Society met in the Auditorium of the High School, Thomas, July 27th, 1923.

The membership was not so well represented but this being the day for First Aid Contests, we were fortunate in having many distinguished visitors, who added much interest to the discussions. Dr. J. L. Miller, vice-president, presided, and never let the business of the Society lag. It may be known we had no lack of interest when you read the list of visiting physicians present: Dr. D. Z. Dunott, Baltimore; Dr. J. R. Littlefield, Cumberland; Dr. W. J. McConnell, Bureau of Mines, Washington, D. C.; Dr. E. Martinez, of Davis; Dr. H. M. Brooks, Benbush; Dr. L. A. Heikes, Boswell, Pa.; Dr. W. A. Campbell, Davis; Dr. G. A. Granger, Henry, W. Va.; Dr. S. J. Lanish, Cumberland; Dr. J. F. Thompson, Albert, W. Va.; Dr. C. H. Hoffman, Keyser, W. Va.; Dr. N. R. Davis, Grantville, Md.

We had no set program and devoted the time we had to hearing and discussing of cases of interest in the hands of those present. Dr. Littlefield reported a case of jaundice he is now treating, evidently resulting from some obstruction of a bile duct. He was treating the case by draining the gall bladder, which was discharging copiously, with a lessening of the jaundiced condition. The one special feature was the absence of any pain at any previous time. This case was discussed by Drs. Butt, McConnell, Dunott, Martinez and Bolton.

Dr. McConnell related his experience in the use of picric acid as a substitute for Tr. Iodine as a disinfectant. He was using an alcoholic solution, when he had an explosion, with some laceration from pieces of glass. The glass was carefully removed and the patient afterward felt some foreign substance in the tissues, what we supposed to be glass overlooked, but upon attempting to remove, we found to be crystalized picric acid. Drs. Butt, McConnell and others questioned the disuse of Tr. Iodine as a disinfectant. Dr. Butt disbelieves the claim that iodine causes adhesions, as claimed by some, in abdominal operations. Dr. Dunott suggests that probably the adhesions, when they exist, are the result of inflammation and not of iodine.

Dr. Dunott reported briefly a case of infection resulting from the treatment of a fracture of the tibia. He expressed his disapproval of fixation in the treatment of fractures. In discussion Dr. Butt strongly advocates specializing in fractures and obstetrics as we are doing in other lines of medicine and surgery.

Dr. Littlefield believes in extension to relieve the pressure of proximal ends, due to muscular contraction. Dr. Dunott deplores the fact that we are getting away from our knowledge of anatomy as was formerly taught. He insists that proper treatment of fractures require constant attention, hence the hospital care is most satisfactory.

The Secretary was directed to write the Greetings of the Society to Dr. M. M. Hoff, of Philippi, who is seriously ill. Dr. C. H. Hoffman expressed his appreciation of the greetings of the Society, previously expressed, when he was ill. Society adjourned to meet in Elkins in October.

J. C. IRONS, Secy.

STATE AND GENERAL NEWS

Dr. and Mrs. J. Ross Hunter and sons were in Huntington recently, having driven down from Charleston.

Dr. J. A. Hill and family of Logan who have been on an automobile trip to Buffalo, N. Y., have returned home.

Dr. T. J. Casto of Charleston was in Huntington, enroute to New York and Washington.

Dr. William York, former state commission from Mingo county, but now a resident of Huntington, is here from his summer home at Allegheny, Va. He will spend several days in Huntington before returning to the mountains.

Dr. F. C. Hodges and wife of Huntington are spending their vacation at Virginia Beach, and Cleveland, N. C., visiting Dr. Hodges' relatives.

Dr. and Mrs. Charles O. Reynolds of Guyandotte have left for a visit to Washington, Baltimore and New York. While in Baltimore Dr. Reynolds will attend the clinic at John Hopkins hospital.

Dr. Nellie Yost of Huntington has returned from Atlantic City where she spent her vacation.

Dr. and Mrs. I. C. Hicks and daughter of Huntington have arrived home from Old Sweet Springs, Va., where they have been spending a ten days' vacation.

Dr. H. B. Martin and family of Huntington have returned from New York where they spent their summer vacation.

Dr. T. W. Moore has returned to Huntington from Chicago where he

spent several days on business.

Dr. W. D. Hereford, Dr. C. G. Willis, Dr. Ben Hume, Dr. F. C. Hodges, Dr. Oscar Biern and Dr. W. N. Rowley, Huntington, have moved their offices into the Professional Building at 1139 Fourth avenue.

Dr. J. Edward Hubbard, Huntington, has moved his offices from the Deegans-Noonan Building to the Professional Building.

Dr. William J. Mayo of Rochester, Minn., returned on August 1st on the Adriatic after attending the congress of the International Society of Surgery in London. Dr. Mayo stated that no positive cure for cancer had been demonstrated at the congress. Dr. Mayo states that he was present at some experiments in Liverpool which were very, very promising. He did not state that a cure had been found, but the results obtained in the recent experiments are very promising.

John D. Rockefeller, Jr., has contributed $150,000 to fifteen hospitals to promote the use of Insulin in the treatment of diabetes, the purpose of the gift being twofold: first to increase the number of free ward patients who may be treated with insulin, and secondly to teach physicians in general practice the proper methods of treatment. Each of the following institutions received $10,000 for this work: Ann Arbor, Mich., University hospital; Baltimore, Md., John Hopkins hospital; Boston, Mass., New England Deaconess hospital; Chicago, Presbyterian hospital; Cleveland, Lakeside hospital; Iowa City, University hospital; New Orleans, Touro Infirmary; New York, Physiatric hospital; St. Louis, Barnes hospital; San Francisco, Lane hospital.

Dr. F. O. Marple, of the Hawes-Marple Hospital and Dr. J. C. Matthews of the Matthews-Bobbitt Urological Clinic, have returned to Huntington after a European trip on which they spent a number of weeks doing special work in Vienna. They also visited Paris, the French battlefields, points in Switzerland, and the city of London. While they found much to interest them in the line of their profession, both are delighted to be once more in Huntington, W. Va., U. S. A.

Dr. J. E. Blaydes announces that he has opened offices in the First National Bank Building, Bluefield, W. Va. Practice limited to eye, ear, nose and throat.

July 20, 1923.

Robert A. Ashworth, M. D., Secy.
West Virginia State Medical Assn.
Moundsville, W. Va.

Dear Doctor:

The Medical Society of the State of Pennsylvania will hold its Seventy-third Annual Session in Pittsburgh, October 2, 3 and 4, with the Scientific Program beginning Tuesday morning and including Thursday afternoon. We will pleased and consider ourselves highly honored to have in attendance upon any of our scientific and social sessions members of your State Medical Society. Any of your members in attendance will be offered the opportunity to register and will be provided with a badge giving them the courtesies of our scientific and social sessions.

We should be pleased to introduce at our opening general meeting, Tuesday morning, October 2, and our House of Delegates, any duly accredited delegate from your Society.

The preliminary program of our session will be published in the August number of the Atantic Medical Journal. We will, at a later date, mail you a copy of the official program.

We respectfully suggest that you request the editor of your medical journal to extend through the columns of your journal the above invitation to your members.

Sincerely yours,
WALTER F. DONALDSON,
Secretary.

NEW AND NON-OFFICIAL REMEDIES

Sofos.—A mixture of sodium dihydrogen phosphate and sodium hydrogen carbonate (sodium bicarbonate), rendered stable by coating the particles of one of the constituents with disodium hydrogen phosphate. One part of sofos has the same phosphate value as 1.75 parts of sodium phosphate U. S. P. When sofos is treated with water, sodium phosphate (Na^2HPO^4) is formed and carbon dioxide is set free. Sofos has the physiologic action of sodium phosphate. It differs from the effervescent sodium phosphate preparations in that it is free from citrate or tartrate. General Chemical Co., New York.

Pollen Extracts—P. D. & Co.—Liquids obtained by extracting the proteins from the dried pollen of various species of plants. The products are standardized in "units," a unit being the extractive obtained from 0.002 mg. of pollen. For a discussion of the actions and uses of pollen preparations, see Pollen and Epidermal Extract Preparations and Biologically Reactive Food Proteins, New and Nonofficial Remedies, 1923, p. 234. These preparations are marketed in packages for diagnostic use and in packages intended both for diagnostic use and for treatment. The following preparations are marketed: Pollen Extract Ragweed, P. D. & CO., and Pollen Extract Timothy, P. D. & Co. Parke, Davis & Co., Detroit. (Jour. A. M. A., July 7, 1923, p. 27.)

Sulpharsphenamine—Billon.—A brand of sulpharsphenamine—N. N. R. (see Jour. A. M. A., March 31, 1923, p. 919). It is marketed in ampules containing, respectively, 0.1 Gm., 0.2 Gm., 0.3 Gm., 0.4 Gm., 0.5 Gm., and 0.6 Gm. Powers-Weightman-Rosengarten Co, Philadelphia.

Radium Emanation (Radium Emanation Corporation).—The emanation, mechanically removed from a solution of a radium salt, in admixture with inert gases. It is supplied in sealed glass capillary tubes, each tube accompanied by a statement of the amount of radium emanation in terms of millicurie contained in it at the time of sale. The radiation from radium emanation as a therapeutic agent is analogous in all respects to that from radium and its salts, except that the activity decreases rapidly (see Radium and Radium Salts, New and Nonofficial Remedies, 1923, 255). The intensity of radium emanation decreases rapidly thru decay (at the rate of about three-fourths per cent. per hour) Radium Emanation Corporation, New York. (Jour. A. M. A., July 21, 1923, p. 213.)

Pollen Protein Allergens — Squibb.—In addition to the products described in New and Nonofficial Remedies, 1923, p. 241, the following have been accepted: Ash Pollen Allergen—Squibb; Hickory Pollen

Allergen — Squibb; Honeysuckle Pollen Allergen—Squibb; Maple Pollen Allergen—Squibb; Oak Pollen Allergen—Squibb; Pine Pollen Allergen—Squibb; Poplar Pollen Allergen—Squibb. E. R. Squibb & Sons, New York.

Animal Epidermal Extracts Allergens—Squibb.—In addition to the products described in New and Nonofficial Remedies, 1923, p. 241, the following have been accepted: Beaver Fur Allergen—Squibb; Chamois Skin Allergen—Squibb; Civet Cat Fur Allergen—Squibb; Fox Fur Allergen—Squibb; Kolinsky Fur Allergen—Squibb; Leopard Fur Allergen—Squibb; Mink Fur Allergen—Squibb; Muskrat Fur Allergen—Squibb; Mole Fur Allergen — Squibb; Opossum Fur Allergen—Squibb; Persian Cat (Angora) Fur Allergen—Squibb; Pony Fur Allergen—Squibb; Raccoon Fur Allergen—Squibb; Seal (Alaskan) Fur Allergen—Squibb; Seal (Hudson) Fur Allergen — Squibb; Sheep's Wool Allergen—Squibb; Skunk Fur Allergen—Squibb; Squirrel Fur Allergen—Squibb.

Food Allergens—Squibb.—In addition to the products described in New and Nonofficial Remedies, 1923, p. 242, the following have been accepted; Apricot Allergen—Squibb; Butterfish Allergen — Squibb; Cocoa Allergen—Squibb; Cocoanut Allergen—Squibb; Cottonseed Allergen—Squibb; Duck Allergen—Squibb; Fig Allergen—Squibb; Flaxseed Allergen — Squibb; Ginger Allergen—Squibb; Goat Allergen — Squibb; Guinea Hen Allergen—Squibb; Hay (Alfalfa) Allergen—Squibb; Huckleberry Allergen—Squibb; Lemon Allergen—Squibb; Olive (ripe) Allergen—Squibb; Paprika Allergen—Squibb; Pineapple Allergen — Squibb; Pheasant Allergen — Squibb; Pumpkin Allergen — Squibb; Rabbit Allergen—Squibb; Scallop Allergen — Squibb; Seabass Allergen—Squibb; Smelt Allergen—Squibb; Sole Allergen—Squibb; Tea Allergen—Squibb; Tobacco Allergen—Squibb; Vanilla Allergen—Squibb; Whiting Allergen—Squibb; Yeast Allergen—Squibb.

Pollen Extracts—Arlco.—In addition to the products described in New and Nonofficial Remedies, 1923, p. 237, the following have been accepted: Arizona Ash Pollen Extract—Arlco; Arizona Cottonwood Pollen Extract—Arlco; Arizona Walnut Pollen Extract—Arlco; Bermuda Grass Pollen Extract—Arlco; Burr Ragweed Pollen Extract—Arlco; Burrowed Pollen Extract Arlco; California Mugwort Pollen Extract—Arlco; Carpet Sage Pollen Extract—Arlco; Greasewood Pollen Extract—Arlco; Hill Sage Pollen Extract — Arlco; Johnson Grass Pollen Extract—Arlco; Mexican Tea Pollen Extract—Arlco; Mountain Cedar Pollen Extract—Arlco; Orach Pollen Extract—Arlco; Pigweed Pollen Extract—Arlco; Prairie Ragweed Pollen Extract —Arlco; Russian Thistle Pollen Extract—Arlco; Sage Brush Pollen Extract—Arlco; Sea Blite Pollen Extract—Arlco; Shad Scale Pollen Extract—Arlco; Western Ragweed Pollen—Arlco; Wild Sunflower Pollen—Arlco.

Pollen Extracts—Arlco are marketed in sets of five vials representing graduated concentrations; also in concentrated solution in capillary tubes for diagnostic test. Arlington Chemical Co., New York. (Jour. A. M. A., July 28, 1923, p. 299.)

PROPAGANDA FOR REFORM

Toxicity of Carbon Tetrachlorid.—Experiments on dogs demonstrated that large doses of carbon tetrachlorid produced degenerative changes in the liver and kidneys of these animals. In view of these findings and the experience of Lambert, it would appear advisable that the dose of carbon tetrachlorid be reduced in routine treatments. (Jour. A. M. A. July 7, 1923, p. 47.)

The Dreyer Tuberculosis Vaccine.—Newspapers have carried extended notices of the Dreyer so-called "defatted" tuberculosis vaccine. The experiments of Professor Dreyer of the Department of Pathology of Oxford University depend on the production of an antigen preparation from tubercle bacilli which are previously deprived of their waxy envelop by treatment with a formaldehyd solution. Animal experiments and some clinical trials have been reported which give ground for the hope that the new antigen may prove of value. Professor Dreyer's work does not offer sufficient evidence to warrant the conclusion as yet that any marked improvement has been made in the treatment of tuberculosis. (Jour. A. M. A., July 14, 1923, p. 138.)

Another Electronic Diagnosis and Treatment.—A report on the case of Mr. D. who was treated for carcinoma by C. E. Phelps, M. D., an Abrams disciple of Hartley, Iowa, is of interest because it represents, undoubtedly, what is duplicated in hundreds, if not thousands, of cases, in various parts of the country. The clinical report is by Dr. E. E. Munger of Spencer, Iowa, and the pathological report was made by Dr. E. R. LeCount of Chicago. Briefly, it is the story of a man in his seventies suffering from an inoperable carcinoma of the stomach with implanted metastasis on various other abdominal organs. Dr. Munger diagnosed condition when the patient first came to him. The diagnosis was verified at the Mayo Clinic. Then the man began taking the "Abrams Treatment." He was led to believe that he was being rapidly cured and was finally told that "everything had cleared up except a trace of colisepsis." A month later he died. (Jour. A. M. A., July 28, 1923, p. 317.)

Ethyl Chlorid as a General Anesthetic.—The published mortality rate from ethyl chlorid anesthesia varies from 1 in 15,000, which is also in the mortality rate of ether anesthesia, to about 1 in 6,000. From these statistics, therefore, one might judge that ethyl chlorid stands between ether and chloroform; but it is probably closer to the latter, which gives a mortality of about 1 in 3,500. Ethyl chlorid, however, is used for minor anesthesia, and it is unfair to compare it with the major anesthetics for prolonged operations. The fair comparison for ethyl chlorid is with nitrous oxid, the accepted mortality rate from which is about 1 death in 1,000,000 anesthesias. Hence, whether for induction of anesthesia or for minor anesthesia, ethyl chlorid is somewhere between 200 and 66 times more dangerous than nitrous oxid. It is, on the other hand, somewhat safer than chloroform. The essential danger from ethyl chlorid lies in the suddenness of the death which may occur within half a minute from the beginning of the inhalation. The danger signs are such as may be overlooked by

any but the most experienced anesthetist. (Jour. A. M. A., July 28, 1923, p. 320.)

BOOK REVIEWS

The Practical Medicine Series—Comprising eight volumes of the year's progress in medicine and surgery. Under the general editorial charge of Charles L. Mix, A. M., M. D. Volume 1—General Medicine, edited by Geo. H. Weaver, M. D., Lawrason Brown, M. D., Robert B. Preble, A. M., M. D., Bertram W. Sippy, M. D., Ralph C. Brown, B. S., M. D. Series 1922. The eight volumes issued at about monthly intervals during the latter part of the year and covering the entire field of recent medicine and surgery. Each volume is complete on the subject of which it treats for the year prior to the time of its publication. This series is published primarily for the general practitioner; at the same time, the arrangement in several volumes enables those interested in special subjects to buy only the parts they desire. The Year Book Publishers, 304 South Dearborn street, Chicago, Ill.

Physiotherapy Technic—A Manual of applied physics, by C. M. Sampson, M. D., formerly of the Physiotherapy Service Walter Reed U. S. Army General Hospital, Washington, D. C.; formerly Chief of Physiotherapy Service U. S. Army General Hospital No. 9, Lakewood, N. J.; formerly Chief of Physiotherapy Service U. S. Army General Hospital No. 41, Fox Hills, Staten Island, N. Y., later Hoff General Hospital; former Reconstruction Officer U. S. Public Health Service, Hospital No. 61, Fox Hills, Staten Island, N. Y., later U. S. Veteran's Bureau Reconstruction U. S. Public Health Service Hospital No. 70, New York City. With eighty-five illustrations. St. Louis: C. V. Mosby Company, 1923. Price $6.50.

Internal Medicine—By James C. Wilson, A.M., M.D., Jefferson Medical College, and Samuel Bradbury, M.D., Columbia University. 3 vols. Octavo. 2090 pages. 427 text cuts. 14 plates. Separate desk index vol. Cloth, $20.00. In England, 100/-

A most important Practice of Medicine written by Practitioners for Practitioners. Up-to-date doctors will look for and find Acute Poisoning by Wood Alcohol, Vitamines, Metabolism and Basal Metabolism, Endocrinology and Lethargic Encephalitis, Focal Infection, Vital Function Testing Methods and their Significance, Acidosis, Dehydration and Allergy Anaphlaxis and Serum Sickness, as well as the old-time tried and proven methods of Diagnosis and Treatment.

Built for the working practitioner to work with, the separate desk index always contains the page and volume number without cross references. It also has an unusual feature of great importance and convenience — a monographic index making the work, through the index, a series of monographs.

The first volume comprises Diagnostic Methods, Signs and Symptoms and Tests, in which you take up medical topography examination of patients, and case taking of physical diagnosis in its various forms, and the examination of various organs, of the urine, sputum, etc., and by means of Rœntgen Rays, with an entire monograph of symptoms and signs.

Volume 2 contains the clinical applications, diagnosis, natural his-

tory of disease and descriptive medicine, wherein diagnosis is taken up by diseases, so arranged and side-headed as to make reference immediate and entirely satisfactory.

Volume 3 is devoted entirely to treatment, making this the handiest Practice we know of.

In this number: Insulin, by Professor A. McPhedran and Dr. F. G. Banting, of Toronto, Canada, with papers on its clinical use by Dr. Seale Harris, of Birmingham, Dr. Louis P. Hamburger, of Baltimore, and Dr. Orlando H. Petty, of Philadelphia. Tularæmia, a new disease of man found in the United States from the Pacific to the Atlantic Coast, by Dr. Edward Francis, of the U. S. Public Health Service. Allergic Diseases, including diagnosis and treatment of bronchial asthma, urticaria, migraine and epilepsy, by Dr. W. Storm Van Leeuwen, Director of the Pharmaco-therapeutic Institute of Leiden, Holland. Electrocardiography, with glossary of terms used in this newest aid to the diagnosis and treatment of heart lesions, by Dr. John Miller Wilson, of Pasadena, California. Blood Transfusion, by Dr. Charles Goodman, of New York City. Rontgen Rays in General Practice, by Doctors Groover, Christie and Merritt, of Washington, D. C. Chorea, by Dr. James Burnett, of Edinburgh, Scotland. Ten surgical topics are discussed, and there are many other medical papers of interest to students and practitioners. Sixth edition. Wilson-Bradbury. J. B. Lippincott Company.

Venereal Disease in the American Expeditionary Forces — By George Walker, M.D., late Colonel, Medical Corps, U. S. A. The object of this book is to record the experience of the American Expeditionary Forces in the control of venereal disease. It is intended to show the methods which really proved effective and those which were found to be futile, and we venture to hope that these records may be of value to the American and other armies.

It has been the author's unpleasant duty to chronicle the shortcomings of both line and medical officers, but an effort has been made to let the principle of disobedience stand out rather than the individual offenders. The aim has been to conceal the identity of such officers in every instance and to disclose no details which might give cause for investigation. Published by Medical Standard Book Co., Baltimore, Maryland.

Practical Dietetics With Reference to Diet in Health and Disease— By Alida Frances Pattee, Graduate Department of Household Arts, State Normal School, Farmingham, Mass.; Former Instructor in Dietetics, Bellevue Training School for Nurses, Bellevue Hospital, New York City; Former Instructor at Mount Sinai, Hahnemann and The Flower Hospital Training Schools for Nurses, New York City; Lakeside, St. Mary's Trinity and Wisconsin Training Schools for Nurses, Milwaukee, Wis.; St. Joseph's Hospital, Chicago, Ill.; St. Vincent de Paul Hospital, Brockville, Ontario, Canada. Fourteenth edition, completely revised. 12 mo. cloth, 687 pages. The latest dietetic text issued since the publication of the "Recent Outline of a Course of Study in Dietetics" issued by the American Dietetic Association. Practical Dietetics follows this outline, also the outline arranged by the National

League of Nursing Education. This book deals with the preparation of appropriate food for the well, the sick and the convalescent, giving in detail the method of preparing and administering liquid, semi-liquid, and solid nourishment. In each instance, the total energy value of each recipe has been given, also a complete table of "Food Values," giving the calories for both "large" and "individual" servings of the various foodstuffs. Price $2.60 net, postpaid. ("Teacher's Dietetic Guide" covering State Board Requirements and Examinations in Dietetics given gratis with each copy of Practical Dietetics). With Pattee's Hand Bag Diet Book, $3.20, postpaid. A. F. Pattee, Publisher, 134 South First Ave., Mount Vernon, N. Y.

Applied Psychology for Nurses—Lippincott's Nursing Manuals, By Donald A. Laird, Assistant Professor of Psychology, University of Wyoming. This book is the result of an attempt to select from the vast literature of psychology those facts that will be of most immediate aid to nurses in understanding the patient, themselves, and their fellowmen, as organisms that act, think, and feel. The author has endeavored to avoid all controversial matter that is not borne out by fact. The point of view from which the facts are presented is biological. This does not alter the fact or applications. But it does seem to further the intelligent understanding of the behavior of human beings.

The text of the book is divided into four parts. Part One is introductory in nature. Part Two presents the biological foundations of behavior. In Part Three the more practical results of the biological adaptations at the psychological level are presented. In Part Four, certain aspects of Mental Hygiene, not taken up in other parts of the book, are considered. Such important questions as the Cause and Nature of Mental Ill-Health, Something About the Feeble Minded, How to Use Suggestion, What Should Be Expected from Psychology in Medicine and Nursing, the Basis of Human Behavior, the biological Foundations of it in the Origin of Man's Needs, Use and Abuse in Thought and How Behavior Indicates Mental Activities, The Temperaments in Nursing, and the Nurse and the Mental Health of the Nation are dealt with in such a way as to be of practical help to the nurse who would understand her own mental life and to the patient whose mental life should be understood by the nurse.

Contents—Part One: Introductory. What Should Be Expected from Psychologgy. Psychology in Medicine and Nursing. Part Two: Foundations. Biological Foundations of Behavior. Man and Beast. Basis of Human Behavior. The Origin of Man's Needs. Simple Behavior in Man. Part Three: Applications. Gaining Skills. Skill in Thought. Using Skills. The Temperaments in Nursing. Indications in Temperaments. Instincts of the Patient. Enter the Villain. How Behavior Indicates Mental Activities. Mental Activities and Bodily Ailments. Use and Abuse in Thought. How to Use Suggestion. Part Four: Mental Health. The Nurse and the Mental Health of the Nation. The Nature of Mental Ill-Health. The Causes of Mental Ill-Health. Something about the Fee-

ble Minded. Price $2.50. J. B. Lippincott Company, Philadelphia and London.

MEDICINE AND SURGERY

RECENT PHYSIOLOGIC FINDINGS REGARDING INSULIN

As could be expected, the almost dramatic clinical results that have attended the introduction of insulin into the therapy of diabetes have focused attention in many places on the nature of this uniquely potent product. The search for the substance to which the therapeutically active products owe their efficacy ought to be, and assuredly will be, pursued assiduously by scientific talent until some reward is secured in the discovery of the actual hormone. Thus, the history of research which led to the isolation of epinephrin and thyroxin is likely to repeat itself, whereupon the organic chemist will find a stimulus to further labors in the direction of artificial synthesis. It would, indeed be a fortunate and happy circumstance if the approaching centennial of the first artificial synthesis of a substance, urea, earlier assumed to owe its origin to the inimitable "vital" activity of living tissues, could be made to encompass the synthetic production of a number of the recognized physiologically potent hormones which have baffled the chemical investigator.

Meanwhile, the enthusiasm for helpful clinical therapy must not be allowed to overshadow entirely the pressing need of further fundamental investigations on the genesis of diabetes, the origin of insulin, the variations in its production in the body, and the mode of its action. Insulin therapy, as shown by the clinical articles appearing in this issue, is essentially a palliative. The underlying defect in the organism that fails to burn its sugar probably remains to be discovered. The patient prosecution of the problem of diabetic pathogenesis must not be obscured by the remedial blessing.

Attention may well be called, in this connection, to the researches of Murlin and his collaborators[1] at the university of Rochester, N. Y. These show that, through perfusion of the surviving pancreas, solutions can be obtained which promply raise the respiratory quotient of diabetic animals. As this is clear evidence of actual combustion of sugar in the body, it becomes an excellent criterion of relief from the diabetic condition.

Insulin-containing extracts have been secured from a considerable variety of sources, including various vegetable products; at any rate, the extracts have been found to affect the level of the blood sugar after they are introduced into the living body. The Rochester experiments duplicate, in a sense, the process by which the blood may normally acquire its supply of insulin from the pancreas. According to them, insulin is extracted by perfusion of the pancreas with acidulated Ringer's solution more readily than with the same fluid made slightly alkaline. Another feature with respect to the behavior of insulin has

1. The Influence of Neutral or Alkaline Perfusates on the Respiratory of the Antidiabetic Substance (Insulin) by Perfusion of the Pancreas, Metabolism of Depancreatized Animals, Am. J. Physiol. 44:330 (April) 1923. Murlin, J. R.; Clough, H. D.; Gibbs, C. B. F., and Stone, N. C.: Extraction of the Antidiabetic Substance (Insulin) by Perfusion of the Pancreas, II, Influence of Acid Perfusates upon the Blood Sugar, D:N Ratio and Respiratory Metabolism of Depancreatized Dogs, ibid. p. 348.

recently been elucidated by E. C. Noble and J. J. R. MacLeod[2]. It has become well known to all who have worked with the hormone that overdosage leads to serious symptoms associated with the consequent hypoglycemia. The symptoms give the impression that some substance having a highly irritative influence on the central nervous system has become developed. As Noble and MacLeod remark, it can scarcely be the case that this stimulus is afforded by a lowered percentage of glucose in the blood per se. It is more likely either that the hypoglycemie is related to the setting free of some toxic metabolic product which in the normal animal is directly or indirectly antidoted by a certain concentration of glucose, or that it causes some change in the chemical or physicochemical equilibrium within the cells, which results in a disturbance of their normal functions. One of the ways by which light can be thrown on this question is to see whether sugars other than glucose have the power to remove the symptoms. If a given sugar fails to have this effect, evidence is afforded not only that it cannot itself act like glucose, but also that it is not converted, to any considerable extent at least, into glucose in the animal body. The latest studies from Toronto show that the only sugar which can definitely antidote the symptoms that accompany the hypoglycemia due to insulin is glucose. Levulose, galactose and maltose may be followed by temporary slight improvement in the symptoms, and they cause a marked increase in the blood sugar. Arabinose, xylose, sucrose and lactose have no apparent effect on the symptoms, although there may be an increase in the reducing power of the blood. Glycerol and alkalis have no effect on the symptoms. Rational insulin therapy must now be placed on the safe basis of profound physiologic studies in which every detail of the reactions of the hormone has been carefully considered. Then, indeed, it will not be too much to expect even greater advances in the therapy of the abnormal metabolism of the carbohydrates.—Jour. A. M. A., June 2, 1923.

2. Noble, E. C., and MacLeod, J. J. R.: The Influence of Sugars and Other Substances on the Toxic Effects of Insulin, Am. J. Physiol. 44:547 (May) 1923.

THE ROUTINE TREATMENT OF DIABETES WITH INSULIN

Successful treatment of diabetes with insulin, Elliott P. Joslin, Boston (Jour. A. M. A., June 2, 1923), says, depends on the utilization of all those measures that have proved of the greatest value in the treatment of diabetes without insulin. These are: adherence to a diet which will keep the urine sugar-free; avoidance of overnutrition or extreme undernutrition, and a method of life compatible with the strength such a diet affords. A knowledge of the fundamental principles of the diet and of the values of a few foods is essential; otherwise the insulin will be squandered and the patient placed in jeopardy. Insulin does not cure diabetes. Insulin does not allow a diabetic to eat anything he desires. It is cruel for prominent individuals to make such statements and arouse false hopes. It is true that heretofore there has never been anything discovered as valuable for the diabetic as insulin; but diabetes, though sub-

dued, is not yet conquered. Intelligent patients can be taught the use of the diet and insulin in a week, and in two weeks the average patient can become free of acid and sugar, and learn what is requisite either in hospital or in boarding house, or with a nurse trained in the care of diabetics in his own home. Insulin can be discontinued in a small fraction of cases. Those patients may be able to omit it who receive it temporarily because of an exacerbation caused by complications, or whose diabetes is of recent onset, though perhaps the latter should receive it intermittently as a prophylactic against increasing severity.

INSULIN IN DIABESTES COMPLICATED BY INFECTION

Insulin was given a severe trial by Solomon Strouse and Oscar T. Schultz, Chicago (Journal A. M. A., June 2, 1923), in five cases of diabetes complicated by infection. Three of these patients died and came to necropsy, two having died of acute pneumonia and one of intoxication from a severe infected gangrene of the foot. The pathologic findings in these three cases were so extensive that it would be beyond reason to expect insulin to accomplish any more than it did. In two other cases, the effect of insulin was truly remarkable. In one case, in which the patient was dying of pneumonia and entered the hospital only twenty-four hours before death in a state of extreme acidosis, there was marked and rapid relief of the acidotic symptoms under insulin therapy, but the symptoms of intoxication due to the infection persisted. In two of the fatal cases, the islets of Langerhans were decreased in number, and vacuolar degeneration was present in the islet cells, having gone on to complete degeneration of a few of the islands in one case. In the third, primarily one of senile arteriosclerosis in which glycosuria was a minor and late manifestation, the pancreas was largely replaced by adipose tissue, leading to a decrease in the number of islands, in some of which hydropic degeneration of a few cells had occurred. This suggests that hydropic degeneration of the islet cells may persist, and perhaps progress, even when insulin is being administered. In diabetes complicatd by infection, insulin is a powerful therapeutic agent which may rapidly overcome the symptomatic effects due to diabetes, thus increasing the chances for a successful fight against the infection. Insulin alone, however, cannot overcome the latter, nor can it be expected to restore to normal, tissues which have undergone degenerative changes as the result of acute or long continued intoxication. During the course of infection in diabetes there may occur a low grade of glycosuria which does not yield to increasing doses of insulin, although the extra may have kept the patient's urine free of sugar before the development of the infection. This may be due to the decreased sugar tolerance, which has long been known to be one of the effects of infection in diabetes.

THE TREATMENT OF DIABETES MELLITUS WITH INSULIN

Ralph H. Major, Kansas City, Kan. (Journal A. M. A., June 2, 1923), reports on the successful use of insulin in cases of severe juvenile diabetes, in the treatment of dia-

betic coma and in lowering the blood sugar in cases of diabetes. His studies indicate that 1 unit of insulin takes care of approximately 2 gm. of carbohydrate in the diet. The study of the urinary output has shown commonly that a polyuria of from 3,500 to 5,500 c.c. in twenty-four hours is present with an absence of glycosuria. Such large amounts of urine, however, were coincident with high values for blood sugar, although the ratio between the two was not constant. In only one patient was sodium bicarbonate used. It had no apparent effect on the acidosis. In two patients he has seen symptoms of collapse, accompanied by profuse sweating and a sense of great oppression and fear, three hours after the injection of 15 units of insulin. One of these patients was given 20 gm. of glucose by mouth, and recovered promptly. The second patient recovered quite suddenly from his collapse, without treatment. This attack occurred during the night, and the blood sugar the following morning at 8 o'clock was 50 mg. per hundred cubic centimeters. Both patients had a hypoglycemia when studied soon after these symptoms. This experience emphasizes that caution must be exercised in the use of this preparation. Patients treated with insulin have shown a prompt rise in carbon dioxid tension. The marked lipemia often present in diabetes disappeared rapidly under treatment.

DIMINISHED GLYCOLYSIS IN THE BLOOD IN DIABETES

William Thalhimer and Margaret C. Perry, Milwaukee (Journal A. M. A., June 2, 1923), do not believe that blood glycolysis measures the total amount of glucose utilized in the body, but we do suggest, tentatively, that it represents an index of the ability of the tissues to utilize glucose. This index may have somewhat the same significance and value, as regards carbohydrate metabolism, as have quantitative blood sugar determinations.

OBSERVATIONS ON USE OF INSULIN IN DIABETES MELLITUS

In using insulin on more than forty diabetic patients, W. H. Olmsted and S. H. Kahn, St. Louis, (Journal A. M. A., June 30, 1923), have never used less than 10 units a day. This adds from 15 to 20 gm. of carbohydrate to the tolerance of the patient, an amount often sufficient, when used with appropriate amounts of fat, to bring about a positive nitrogen balance in place of a negative one. In such a class of patients, it hardly seems worth while to use smaller amounts of the extract. Insulin, besides increasing the caloric tolerance, is invaluable in coma and in conditions in which severe infections complicate the disease. Ten patients in comatose and precomatose states have been treated, and all have shown blood alkali percentages by the Van Slyke method of 25 per cent or less by volume. Six were below 15 per cent by volume. In the author's experience, insulin alone does not bring about so rapid a return of blood alkali as when used in conjunction with intravenous alkali. A procedure adapted to the treatment of coma is the administration of 20 units of the extract every three hours. Future dosage is regulated by the change in the blood sugar. As soon as the

blood carbonate is normal, or the ferric chlorid reaction in the urine becomes faint, the intervals between doses are lengthened to six or eight hours.

CALCIUM THERAPY IN TUBERCULOSIS

The resistance to tuberculosis of those who work in lime dust is traditional. Whether lime salts taken into the lungs in these cases are deposited in the tubercles, or stimulate fibrosis by mere mechanical action, or whether they exert any beneficial influence at all, is not known. Nevertheless, the therapeutic administration of calcium in tuberculosis has gained favor and has been endorsed by many clinicians. Wersen administered calcium lactate by mouth to twenty children with tuberculous peribronchial lymph nodes, and studied them, with an equal number of controls, by the fluoroscope. He believed that the treated patients showed more calcification of the nodes and a greater improvement in health than did those who had not received calcium. Clinical reports of favorable results from the use of calcium are numerous, but in a recent review of the literature, Maver and Wells[1] state that they have been unable to find the reports of any clinical study that has been adequately controlled. They also conclude there is no experimental proof that the administration of calcium, either by mouth or otherwise, increases the amount of calcium deposited in tubercles or other necrotic areas, unless Wersen's observation is considered experimental.

An appreciable increase in the amount of calcium deposited in tuberculous tissues by increasing the calcium intake is not to be expected, except when the blood calcium is already below normal. The normal amount of blood calcium represents about the maximum that the blood can carry. A greater amount than normal is promptly precipitated out of the blood in those tissues that are most alkaline. It does not appear that any deficiency in blood calcium exists in tuberculous patients. At least, there are no figures obtained by modern methods which indicate such a deficiency. Steinitz and Weigert[2] analyzed the entire body of a one year old child who died of tuberculosis. They found a normal total ash figure and no abnormal distribution of the inorganic elements of the ash. Jacobowitz was not able to increase the blood calcium by oral administration either in normal children or in those with tetany. It has been shown, furthermore, that the subcutaneous injection in cats of nearly lethal doses of calcium chlorid produces a rise in blood calcium, which reaches its maximum in from thirty to ninety minutes, and which falls again to normal within five or six hours. The intravenous injection of large quantities may drive the blood calcium far beyond its normal amount, but the original figure is restored in about two hours.

In view of the supposed clinical benefits of calcium in tuberculosis, and of Wersen's observation especially, an experimental study of the

1. Maver, Mary E., and Wells, H. G.: The Alimentary Absorption of Calcium and Its Deposition in the Tissues in Experimental Tuberculosis, Am. Rev. Tuberc. 7:1 (March) 1923.

2. Steinitz and Weigert: Deutsch. med. Wchnschr. 30:838, 1904.

influence of calcium feeding on the deposition of calcium in tuberculous and nontuberculous tissues was made by Maver and Wells. Their first analyses were of normal laboratory animals to establish controls. A dose of calcium lactate equivalent to from 25 to 30 gm. for an adult person was administered daily for periods varying from fifteen to 288 days. Various tissues were then examined. It was found that the administration of calcium had not generally appreciably increased the calcium content of the tissues, and no recognizable difference was found between animals that had received calcium for long or for short periods. A series of animals injected with human tubercle bacilli of low virulence, which were fed calcium after the lymph nodes became palpable, and another series injected with a virulent strain of human tubercle bacilli, were similarly examined. To determine the effect of calcium on the course of tuberculosis, twenty-four other normal guinea-pigs were at the same time inoculated subcutaneously with 0.005 mg. of a culture. Twelve of this series received calcium from the day of inoculation, and twelve received no calcium. Eighteen of these animals, evenly divided between calcium fed and controls, died within 135 days. Analysis of the two separate lots of tissues showed that the administration of calcium to these animals did not reduce the spread of the tuberculous lesions, or lead to a greater amount of fibroplastic tissue reaction. The average length of life of the calcium-fed animals in this series was 92.5 days, and of the animals receiving no calcium, 74.4 days. Maver and Wells say that nothing is less constant than the length of life of tuberculous guinea-pigs, even under identical conditions of dosage and environment, and the slight difference indicated here is of no significance whatever.

These experiments show, among other things, that the addition of calcium lactate to the diet of normal guinea-pigs does not increase the amount of calcium to be recovered from most of the tissues. The kidneys may contain a little more, presumably because they are excreting any excess absorbed, and the lymph nodes usually show an increased amount, presumably from the inhalation of dust. A marked tendency of calcium to accumulate in the tuberculous lesions was noted, but the amount of calcium in tuberculous tissue was not appreciably modified by feeding calcium lactate in addition to the usual diet. Tuberculous lungs showed a much less tendency to accumulate calcium than tuberculous spleens, livers or lymph nodes.

This study failed, therefore, to furnish evidence that the administration of calcium exerts a favorable influence on the course of tuberculosis. It involved numerous observations and repeated analyses of many small animals, a mass of scientific detail carefully controlled, and a considerable period of time. It is convincing. In the face of a large amount of empiric belief of the beneficial effect of calcium, it would appear desirable to conduct clinical experiments of an equally scientific nature if the use of the calcium compounds is to be continued. Certainly there appears to be no scientific basis for their continued utilization.—Jour. A. M. A., June 2, 1923.

THE VALUE OF THE TOXIN (ANTIGEN) OF RHUS TOXI-CODENDRON AND RHUS VENENATA.

Albert Strickler, Philadelphia (Journal A. M. A., June 2, 1923), presents a statistical discussion of two problems. The first is a study of the relative value of the antigen method of treating dermatitis venenata due to poison ivy or poison oak, as compared with the older methods of local applications. The second phase of the discussion is whether or not this specific toxin (antigen) treatment is of value in the prevention of attacks of dermatitis venanata in those who are highly susceptible to it. The toxin (antigen) treatment of dermatitis venenata, caused by poison ivy, which is the most common type in the eastern United States, consists in the intramuscular injection of a solution of this specific antigen. The author's technic consists in giving a series of from three to five injections, the number administered varying with the severity of the attack and the response on the part of the patient. The dose of the present preparation varies from 0.3 to 0.5 c.c., although doses up to 0.7 c.c. may be given. The first two doses are given at a twenty-four hour interval, the remainder at intervals of from forty-eight to seventy-two hours, depending on the response of the patient. As a rule, to which there are few exceptions, the itching associated with this form of dermatitis disappears completely, or is greatly modified, within twenty-four hours after the first injection. With the relief of the itching, the swelling and redness of the parts affected begin to disappear, and vesicles present begin to dry up and form crusts, which soon fall off. The skin is usually restored to normal in from four to five days after treatment is instituted, except in those generalized and violent cases of dermatitis venenata in which the restoration of the skin to normal may be more delayed. These results are accomplished without the aid of any external remedies whatsoever. A detailed account is given of the results achieved in the treatment of more than 350 cases of dermatitis venenata due to poison ivy or oak treated with the toxin (antigen) method.

ENCEPHALITIS FOLLOWING INTERFERENCE WITH DEAD TEETH

Robert Burns, Jr., San Francisco (Journal A. M. A., June 2, 1923), reports two cases of encephalitis developing after the extraction of a dead tooth. Special attention is didirected in Case 2 to the entire absence of contact with an active case and the great improbability of contact with a carrier. The patient had not suffered from a prior attack of influenza and had not come in contact with any one so suffering.

CICATRICIAL STENOSIS OF THE ESOPHAGUS CAUSED BY COMMERCIAL LYE PREPARATIONS

Louis H. Clerf, Philadelphia (Journal A. M. A., June 2, 1923), reports sixteen cases of cicatricial stenosis of the esophagus caused by commercial lye preparations seen within a period of sixteen months. In these cases, as in practically all cases of esophageal stenosis resulting from lye preparations, an anaysis of the circumstances attending the ingestion of the alkali re-

veals several points of interest. The swallowing is practically always accidental, the lye, in powder or solution, being left within reach of the child, or put on the kitchen shelf with other containers and mistaken for one of these. Sometimes it is a residue adhering to a cup which has been used to measure lye. This apparent carelessness is due to a lack of knowledge of the highly poisonous nature of all lye preparations. Since lye may be purchased anywhere, and since the labels on the containers either have no poison or warning notice, or, if present, it is usually inconspicuous, it is readily seen that education as to the poisonous nature of lye is only by bitter experience. Viewing the matter purely in the abstract, Clerf says it is difficult to understand why necessary legislation has not been provided to prevent these pathetic occurrences by adequate "scare labels," especially when, on every hand, efforts are being made to protect against disease, to safeguard against injury, and to prolong life. A careful presentation of this question to legislators and manufacturers from the humane side, as well as a consideration of its economic aspects, should convince them of the necessity of remedial measures.

THE RATIONAL TREATMENT OF FRACTURES OF THE UPPER END OF THE HUMERUS

The following points are considered as essential by James Warren Sever, Boston (Journal A. M. A., June 2, 1923), in the treatment of fractures of the upper end of the humerus: 1. Anatomic restoration of fragments is best obtained by abduction, outward rotation and elevation of the humerus. 2. Traction in this position is essential for from four or five days to two or three weeks. 3. A satisfactory ambulatory splint may be employed rather than bed treatment. 4. Better and more quickly obtained functional results may be secured by this method than by any other. 5. Operation, except in certain cases of fracture dislocations, is generally unnecessary to restore fractured surfaces.

A MILK-BORNE EPIDEMIC OF SEPTIC SORE THROAT IN PORTLAND, OREGON

The epidemic reported on by R. L. Benson and H. J. Sears, Portland, Ore. (Journal A. M. A., June 2, 1923), which included 487 cases of septic sore throat, with twenty-two deaths, occurred almost exclusively among the customers of a single raw-milk dairy. All but one one of the patients who died had drunk this milk. Prompt detection of the cause of the epidemic and equally prompt control of the milk supply by heating were made possible by complete cooperation between the clinicians, the city health bureau and the dairy management, and resulted in checking further extension of the epidemic within twenty-four hours after the suspicion of a milk-borne epidemic was first brought to the attention of the health bureau. Similar strains from hemolytic streptococcus were obtained in almost pure culture from the inflamed udder of a cow of the herd, from one milker's throat, and from the throats of numerous septic sore throat patients and contacts. All these strains were shown to be of the human type. It is probable that

the milker in question infected the udder of the cow, producing purulent mastitis; that, on one or more occasions, this cow was milked in with the herd, and that the massed infection thus produced resulted in the epidemic. This cow's udder had both human and bovine strains of hemolytic streptococci. One quarter, containing a human strain, had a massive mastitis indistinguishable grossly from garget; another quarter, having a bovine strain, was only slightly consolidated.

PARAVERTEBRAL ANESTHESIA IN ACUTE SUPPURATIVE PLEURISY

Isadore Seff, New York (Journal A. M. A., June 2, 1923), describes his technic as follows: Three quarters of an hour prior to operation, the patient is given a hypodermic injection of a quarter of a grain of morphin sulphate and 1/150 grain of atropin sulphate. A freshly prepared solution of procain is employed in 0.5 per cent strength. Ten drops of a 1:1,000 epinephrin chlorid solution is added to each 30 c.c. of the anesthetic solution. The patient is placed on the normal side, the head slightly flexed on the chest. The thighs are semiflexed on the abdomen, which increases the posterior convexity of the vertebral column, thereby creating an increased distance between the spinous processes, and also between the ribs posteriorly. With the patient in this position, the approach to the spinal nerves coming through the intervertebral foramina is accomplished with greater ease. It has been Seff's practice to block the three spinal nerves above and the two below the rib chosen for the resection. With an empyema located in the right chest, a section of bone from the eighth rib, usually just in front of the angle, is removed. On the left side the ninth rib is selected. In patients with a right suppurative pleurisy, a point 1¼ inches (32 mm.), or two finger breadths, external to the tip of the fifth dorsal spinous process is selected, at which an intradermal wheal is first made. A long, thin needle is then directed perpendicularly and somewhat upward until the upper edge of the sixth rib is felt. The needle is then directed upward and a little inward, thereby reaching the intervertebral foramen through which the fifth dorsal spinal nerve emerges. In this region the needle is first passed for a distance of 2.5 cm., and then for about 3 cm. after going over the edge of the rib. From 15 to 20 c.c. of the solution is injected, only a small quantity being infiltrated on insertion and removal of the needle. This procedure is repeated opposite the sixth, seventh, eighth and ninth dorsal spinous processes. To obtain complete analgesia when the incision is extended to the inner side of the mammary line, it is necessary to infiltrate over the sternum above and below the chondrosternal articulation of the rib to be resected, and for the same distance posteriorly. This is done to block the intercommunicating branches of the nerves coming from the opposite side. The postoperative comfort of the patient is striking. This is probably due to the almost entire elimination of shock. The period of convalescence was decidedly shortened. Complete healing of the wounds ranged from a period of from twelve to sixty days. The ability to palpate the pleural cavity, and to remove the

fibrin and break up fresh adhesions without causing any irritative symptoms, demonstrates the effectiveness of the analgesia obtained by the paravertebral method. With perhaps few exceptions, Seff employs paravertebral anesthesia now as a routine in acute suppurative pleurisy.

GASTROPEXY BY SHORTENING THE GASTROHEPATIC OMENTUM

John J. Gilbride, Philadelphia (Journal A. M. A., June 16, 1923), has operated on seven patients. The operation performed was strictly an anatomic and physiologic procedure. The stomach was not fixed, but it was placed in a position which greatly facilitated a restoration of its functions. Three continuous mattress sutures of No. 1 chromic gut were introduced into the gastrohepatic omentum, to shorten that structure by pleating it, and thereby elevate the stomach.

THE MOTOR MECHANISM OF THE GALLBLADDER

The motor function of the gallbladder was studied by Asher Winkelstein, New York (Journal A. M. A., June 16, 1923), by means of the utilization of the following technic: Four very small, light, flat disks of silver were sewed in quadrilateral arrangement on the serosa of the ventral wall of the dog's gallbladder. When the laparotomy wound was completely healed, the animal was studied roentgenologically. With the aid of this procedure, it was found that during the fasting state, on the exhibition of food, when food was in the stomach, at the instant of entrance into the duodenum, and during the duodenal passage of food, there occurred no approximating motion of the metal buttons. In other animals, there was introduced in addition to this method a duodental fistula opposite the papilla of Vater. Solutions of magnesium sulphate, hydrochloric acid, sodium chlorid and peptone were then injected through the fistula. A contractile movement was, however, not seen. Furthermore, there was a definite decrease in the size of the outline of the gallbladder after a meal, or the injection was not apparent, indicating that an appreciable emptying did not occur. The only motion seen was a definite craniocaudal rhythmic approximation of the disks with each inspiration. The importance of this hitherto unobserved phenomenon will be discussed later. Postmortem investigation revealed no adherence of the silver platelets or of the gallbladder wall to the surrounding structures. It was evident, however, that a definite specimen of bile can remain at least four or five days in the gallbladder. The latter is, however, eventually emptied of that definite specimen, although the act is very gradual. The intra-abdominal pressure at the height of inspiration is insufficient to force bile out of the gallbladder into the duodenum when the papilla of Vater is closed. The pressure necessary to drive bile from the gallbladder into the duodenum when the papilla is open is less than is exerted in the location of the gallbladder at the height of a normal inspiration. It is, therefore, concluded that the respiratory act is the chief factor in the emptying of the gallbladder; i. e., the respiration is the motor of the gallbladder.

INTRA-UTERINE TRANSMISSION OF ANTHRAX

Joseph C. Regan, Abraham Litvak and Catherine Regan, New York (Journal A. M. A. June 16, 1923), report the case of a healthy, well-developed, pregnant woman with an anthrax lesion of the face. On admission to hospital, the patient did not seem prostrated or dangerously ill, yet her blood stream already contained large numbers of anthrax bacili, as the blood culture taken at the time subsequently showed. The transmission of anthrax to the fetus was proved in this case both by the cultures taken, at the necropsy of the mother, from the fetal heart blood and liver, and by the finding of typical large, gram-positive bacilli in the microscopic sections of the fetal liver tissue. It is logical to believe, the authors say, that the transmission occurred through the placenta.

THYROIDISM COMPLICATED BY HEART FAILURE

Burton E. Hamilton, Boston (Journal A. M. A., June 16, 1923), reports a small group of thyroid cases in which the patients were completely disabled by heart failure of the congestive type. These patients are rather old, and have auricular fibrillation and severe degrees of thyroidism which has persisted a long time in spite of attempts at palliative treatment. As a rule, they have been considered by their medical advisers as unfit for operative treatment. Twenty-two such patients have been operated on in Dr. Lahey's clinic in the period extending from more than two years ago to five weeks ago. One patient died suddenly. The others are alive, and show relief of disability in varying but satisfactory degrees.

THE MENTAL AND PHYSICAL HEALTH OF SCHOOL CHILDREN

The observations discussed by Sanger Brown 2d, New York (Journal A. M. A., May 12, 1923), are based on a physical and psychologic survey of 150 schoolchildren. These children were in a special school, a probationary school, and were there for observation because they had had difficulties in the class and had failed to make progress in their studies. The survey, therefore, was chiefly to determine the mental characteristics of these children, but a complete physical examination was made of each child and physical defects were recorded. The main problem in many instances was to determine the best means of finding out how certain limitations and handicaps were to be overcome or eliminated, in order to make these children successful, at first in the relatively simple relationships of school life and later in the world at large. Children of this type are often spoken of as difficult or unusual. They are nervous and sensitive. Often they have unusual temperamental traits, and they do not have interests which are common to the majority of children. Their parents realize that some difficulty exists, but they are not sure just what it is. With some teachers, they may get along well; with others, not at all. Children presenting these difficulties exist in all families, whether rich or poor. They are met in city life and in country life, and the condition is not peculiar to the present generation.

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SOME FURTHER OBSERVATIONS ON SURGERY OF THE GALLBLADDER, TOGETHER WITH AN ANALYSIS OF 100 CONSECUTIVE OPERATIONS

Read at Annual Meeting West Virginia Medical Association, Beckley, June 1923

DRS. W. H. ST. CLAIR and R. O. ROGERS
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Including a large part of surgical effort applied within the abdomen, with results in a fair proportion of cases still disappointing, surgery of the gallbladder and its passages continues to hold a place of special interest to the abdominal surgeon. In no field of surgical endeavor has there been a more striking evolution of procedure. The earliest work consisted largely of operations of urgent necessity and was directed usually at the alleviation of extreme conditions the result of neglect and a hesitancy on the part of the medical advisor to risk earlier relief in the presence of an uncertain technic and a consequent high mortality. As the knowledge of the nature of the disease became more certain and as operative technic was applied with more precision, an early resort to surgery became the rule rather than the exception, with the result that the patient has generally been relieved and many of the crippling effects of late and neglected disease have been anticipated. The presence of calculi somewhere in the biliary tract continues in a large majority of cases to constitute an expected part of pathologic findings, although a primary and persisting cholecystitis has come to be looked upon as the dominant factor. Improved methods of dealing with biliary disease have undoubtedly increased the number of favorable end-results, but certainly with the present practice no one should be satisfied that the limit of attainment has been reached.

Any rational therapy presupposes

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the strictest accuracy in diagnosis, the principle applying with more than common emphasis in diseases of the biliary tract where, with every diagnostic refinement, it is often impossible to foretell the presence of disease. Unfortunately, in a fair proportion of cases, the uncertainty continues to obtain after the abdomen is opened and examination of the gallblader and its passages has been made. A decision therefore judiciously arrived at that pathology is present and justifies surgical intervention is the first requisite in the attainment of satisfactory results.

The increasing proportion of non-calculus cholecystitis coming to operation and constituting a part of statistical reports indicates that the abdomen is explored and surgery directed to the gallbladder with a great deal more temerity than formerly. Thickened and contracted walls, pericystic adhesions, enlarged lymph glands, papillomatous and "strawberry" gallbladder constitute well defined pathologic processes, and the idea is not intended to be suggested that the presence of stones is the only concrete evidence of disease. Where the increasing proportion of cases without stone, however, is so manifestly evident, the question arises how often surgery is directed to a gallbladder only problematically the seat of disease.

In a series of 549 cases in which operation was performed prior to 1918 because of supposed gallbladder disease, Murat Willis, of Richmond, Va., reports that stones were found in 86 per cent of instances. In a later series of 100 cases, in which it was admitted that an attempt was made to include a larger proportion of cases diagnosed in the precalculus stage, stones were absent 25 times. "Any gratification expected to follow an apparent increase of diagnostic skill was lessened when 40 per cent of the cases without stone showed no histologic changes that could be considered pathologic." The same operator compares his own observations with statistical studies of 365 cases operated on for cholecystitis at the Peter Bent Brigham Hospital, in which non-calculus cholecystitis constituted only 13.7 per cent of the total and included one normal gallbladder in every three removed. The insistence upon applying surgical measures in the precalculus stage is commendable if we would be certain that the sacrificed gallbladder was the actual seat of disease. Disappointing results in too large a proportion of cases would seem to prove the contrary, and we have no conclusion to draw but that, in an over zealous effort to account for certain clinical symptoms, the gallbladder, in the absence of other pathology, has been assumed too enthusiastically to be the explanation.

When a pathological process is present and operation is undertaken, the decision whether to drain or remove the gallbladder is the first problem confronting the operator. Much of the contention as to procedure has involved a question of safety and the feasibility of removing an organ which has a function, though not a vital one. Cholecystostomy certainly is an easier and a simpler operation, but extirpation done with due care should not entail greater danger, provided removal is not practiced indiscriminately and attempted with no regard to local pathology and the gen-

eral condition of the patient. To the insistence upon function and its possible preservation it is admitted that the gallbladder has a definite function, that of storage and concentration of bile, but we know, after all, that the mechanism of bile discharge, in the absence of the gallbladder, is accomplished in a way that does not disturb health, and it is problematical if the ill effects of a retained crippled gallbladder might not outweigh any favorable part expected to be played in the process of normal digestion by possible function of the retained organ. It does not seem to us therefore that an element of safety enters or that the question of doubtful preservation of function should obtain in selecting an operation which offers the best chance of ultimate cure of your patient.

In the presence of a severe acute process, of local peritonitis or gangrene, or where from some systemic cause the vitality of the patient is low, it is obvious that the least amount of operating should be done. Drainage under such circumstances serves an excellent purpose and removal of the gallbladder would be both dangerous and difficult. Likewise in certain obstructive conditions associated with disease of the head of the pancreas, drainage may be indicated as a temporary measure, or retention of the gallbladder may become necessary for the purpose of effecting an anastomosis. These cases represent extreme conditions and constitute fortunately a small proportion of patients seeking operative relief. A strikingly large part of surgery directed to the gallbladder is conspicuously interval work, and local pathology and the general condition of the patient are such as to permit of a procedure which removes the result of disease and eradicates its source at the same time. In these usual cases, constituting as they do the general run of work, cholecystectomy has come to be the accepted operation and represents, we believe, a practice thoroughly tenable on the basis of pathological principles and fully justified in the light of satisfactory results.

During the past 2½ years, along with a general surgical practice, we have encountered gallbladder cases of a sufficiently large number and variety of conditions to constitute a series from which we can draw reasonably definite conclusions. In surgery as in every other field of endeavor, it is the province of a few to blaze the way where others must follow, and we are in the habit naturally and correctly of seeking guidance largely from results obtained where cases are done in the hundreds and even in the thousands. The problems are not necessarily the same, since it is obvious that generally only picked cases journey a long distance to the larger clinics. In this way any local series would include a proportionately large number of emergencies and desperate situations. The idea therefore that we represent fairly well the experience of the average small hospital is the principal apology for venturing an analysis of our own work.

From January 1, 1920, to May 30, 1923, we have operated on the gallbladder or its passages 100 times. (The period therefore covers nearly 2½ years and includes all gallbladder surgery done at the Bluefield Sanitarium during that

time.) The series of 100 operations is not an arbitrary selection but coincides with a period when our interest in this particular field of work has been keener and when certain well defined lines of procedure have been followed.

The incidence of age and sex was not unusual; the average age was 40 and 79% of the cases were women. The vast majority of the women had borne children. The youngest patient operated on was 16. It was interesting to note that the two next youngest patients (ages 19 and 21) both had calculous gallbladders. The oldest subject was 67, a physician who had harbored gallbladder disease for years and who put up with its crippling disability until a large empyema of the gallbladder made operation a second time immediatey imperative.

Of the 100 operations calculi were present 75 times. With the pendulum now swinging in the direction of a stricter interpretation of what constitutes real pathology, this incidence of stone is of immense satisfaction to us, because we believe the incidence is tenable and does not permit of too wide a margin for the gallbladder problematically diseased. The percentage of satisfactory end-results would be favorably affected in our own series, as we shall show further on, if the incidence of non-calcuous cases had been still smaller.

The 75 calculous cases represented, independently of the actual presence of stones in the gallbladder, a wide variety of pathologic changes. Calculi were found in the common duct 4 times. A quiescent gallbladder containing one or several stones but showing no other palpable evidence of disease was a fairly frequent occurrence. More often gross changes in and about the gallbladder had taken place. A contracted and partially obliterated gallbladder or one with thick, leathery walls was not uncommon. Pericystic adhesions fixing the gallbladder to neighboring structures accounted for pathology next in frequency to the actual presence of stone. Enlarged regional lymph glands occurred in proportion to the degree of inflammatory change in the gallbladder itself. The gallbladder was filled with pus in four instances and rupture had occurred once with dissemination of bile throughout the peritoneal cavity.

Whenever calculi have been found in any part of the billiary tract we know that solid evidence of disease obtains, and it has been our experience that in such cases, when removal of the gallbladder is possible, a cure is expected to follow. An overlooked or re-formed stone in the common duct is always a possibility, but this is certainly rare. Unfortunately we cannot count on such sanguine expectation from surgery applied to all of our non-calculous cases. In 14 of 25 such cases which are included in the series changes in and about the gallbladder have indicated disease as certainly as if stones were abundantly present. Some of these cases, in fact, have represented the severest diseased processes that we have encountered and, with one or two exceptions where the pathology could be dealt with only tentatively, operation has been followed by strikingly good results. Two additional cases included cancer, in one instance of the gallbladder and in another of the head of the pancreas. Pathology designated in the

remaining 9 cases consisted of pericystic adhesions or adhesive bands, and it is problematical if these represented actual disease or were merely anomolous conditions. The subsequent history of 5 of these 9 cases furnishes us ample proof that none of their symptoms were relieved even if their pathology was corrected.

For some time prior to the period which includes this series we had adopted the practice of removing rather than draining the gallbladder. In persisting in this practice now we are not unmindful that the last word in gallbladder surgery has not been spoken, and a plan which seems logical enough at this time may be modified materially in the light of future developments. Adding force to the insistence upon some operative measure which retains the gallbladder and preserves possible function, a suggestion made that a dilated common duct following extirpation of the gallbladder may be a prolific source of stone reformation. Removal has been practiced now for a considerable number of years, and we do not believe that this sequel has been observed to any alarming degree up to this time. A case of ours operated on 5 or 6 years ago recently developed colic associated with jaundice and this case no doubt represents such an incidence. On the other hand, in 100 operations, it is a significant fact that 10 of the operations were directed to the relief of symptoms persisting or recurring after the operation of drainage had been previously done. Removal has not escaped secondary operation altogether and in two instances we had occasion to open abdomens with absent gallbladders. In neither instance, however, was the existing pathology at secondary operation of a nature that could possibly affect the status of the primary operation if properly chosen and properly performed. One of these cases, a patient whose jaundice did not improve following removal of her gallbladder some months previously in another hospital, was relieved temporarily by an anastomosis affected between a greatly dilated common duct and the duodenum for an obstructive cancer of the head of the pancreas. The other case, a patient of our own at both operations, required duct reconstruction on account of a permanently injured hepatic duct occurring when removal of the gallbladder was done.

Local pathology and the general condition of the patient are always determining factors in the choice of procedure in any given case. In six instances in our series existing pathology was of a nature that rendered drainage the only possible measure, and in a seventh instance the general condition of the patient made the least amount of operating desirable. "Ideal cholecystotomy," exploration for carcinoma, duct reconstruction, and anastomosis for obstruction, each was done once, leaving 89 cases in which the operation consisted of removal. In these 89 cases drainage of the common duct was an additional feature six times, resorted to in four instances for calculi and following simple exploration in two others. In the very acute conditions, where drainage of some sort is the rule, it is obvious that each case is a problem in itself and that no hard fast lines can be followed. The same principle applies when the serious undertaking of duct reconstruction is attempted.

The operation of removal of the gallbladder has become pretty well standardized and does not permit of a wide diversity of procedure. The undertaking nevertheless is fraught with potentially serious consequences and should never be attempted without thorough familiarity with normal anatomy and anomalies of the cystic duct. Recently we have followed the practice of incising the peritoneum to the right just as it is reflected over the lower part of the gallbladder and continuing the incision on or along the lower border of the cystic duct, peeling up the gallbladder when the duct is exposed to view and clamped with a certainty that no other structure, normal or anomalous, is included. This phase of the operation has been impressed on us very forcibly by reason of an unfortunate accident occurring in an early case of our series. As already casually noted, the hepatic duct in this instance was included in the blades of the forceps clamping the cystic duct. Stricture of the duct followed and left us a case of most trying and persisting jaundice to deal with later. The chagrin of this serious accident was mitigated to some extent through our good fortune a year later to restore this patient to normal health by successfully effecting an anastomosis between the hepatic duct and the duodenum according to the procedure worked out by W. J. Mayo.

In the total series operative mortality followed in two instances. One case was that of a very stout woman, aged 40, who had had repeated attacks of colic with increasing frequency for a period of several months preceding operation. At operation a gallbladder with edematous walls and containing pus and multiple calculi was encountered. A clean excision of the gallbladder was done, and encouraged by uniformly good results and a shorter convalescence following a practice previously adhered to of closing the abdomen without a drain, this case was treated likewise. Distension of the abdomen followed in a couple of days and when the incision was opened a large amount of bile and infected material came away. The patient ditd the fifth day after operation. In the total quiescent type of gallbladder we still think that all drainage can safely be discarded, but this case has taught us that a rubber wick inserted down to the cystic duct represents safety whenever infection in or about the gallbladder is at all active. The second case was that of a similar type of patient, a woman aged 52, who was just recovering from an acute process accompanied by temperature. At operation a calculous gallbladder with greatly infiltrated walls was found. We were aware of the unfavorable general condition and simple drainage of the gallbladder was done. An error in this instance consisted of attempting operation of any kind until the patient was farther away from her acute process. Death occurred on the second day, no doubt the combined result of operating and an acidosis developing rapidly in a subject whose food intake had been hampered greatly for a week preceding operation.

Discussion

Dr. John E. Cannaday, Charleston:

I think we are due Dr. St. Clair

a vote of thanks for his concise series of case reports. The manner in which he extricated himself from various dilemmas is very creditable.

Dr. LeGrand Guerry, of Columbia, South Carolina, has for the last several years written some very instructive articles on the cure or relief of strictures of the common duct. I take it that his technic is largely similar to that of Dr. Mayo.

Dr. St. Clair spoke of draining cases after the removal of the gall-bladder. Following the suggestion of Dr. Willis a few years ago, I have abstained from draining after the removal of a considerable number of gall-bladders, and have had no bad results follow. I feel that that method has been tested out sufficiently to win the approval of time. In such a case I feel that we would follow the same rule as after removal of the appendix. If there is sufficient infection of the appendix to make us fear an intra-abdominal abscess, we would put in a drain, and the same procedure can be followed with the gall-bladder. The lumen of the average cystic duct is smaller than that of the average appendix, and we have little reason to fear leakage from the stump.

One of our Charleston doctors, Dr. Buford, has for some time been practicing amputation of the cystic duct with the electric cautery, and upon his suggestion I tried this method. I believe it to possess certain advantages, by the elimination of local infection, and by amputating the cystic duct with very dull heat you lessen the possible dangers of secondary hemorrhage or infection. The cautery also helps to ligate the duct. There may be occasional cases in which it is rather difficult to apply the general type of electrocautery, but generally it is quite easy. Personally, I have reason for thinking that the gall-bladder may be removed a little too often. I believe that there is a slight tendency to reaction in regard to the removal of the gall-bladder. I believe that many surgeons are not removing quite so many gall-bladders as they did a few years ago, but are leaving some in the hope that they will be restored to normal and serve some useful purpose.

There is a question of draining the gall-bladder without removing stone. That must have some application, particularly where there is one mulberry stone. It there is a large number of stones, the tendency for the formation of stones is very great, but where there is a solitary stone of long standing, without a great many symptoms, I believe it is perfectly feasible and logical, and surgically correct, to remove that stone, suture the gall-bladder, and leave the patient in a condition of normal anatomy, rather than attempt to remove that gall-bladder, which is apparently normal except that it contains a foreign body. We all know that in many cases the stone has been there for years, without causing appreciable symptoms.

Dr. St. Clair spoke of the youth of one of his patients, who was sixteen. I do not believe I have ever had one so young. Most of mine are over thirty, though I have had a few between twenty and twenty-five.

Another thing that has interested me in operating upon a considerable clientele of the mining population is that coal miners themselves do not have gall-stones, but their wives do, and the cases come in persons

who are rather sedentary. A man at a desk develops it much more frequently than a man engaged in active labor. I believe that in active labor the gall-bladder and liver are so massaged that they are kept in pretty healthy condition.

DIAGNOSIS OF SURGICAL CONDITIONS OF THE KIDNEY AND URETER

Read Before the West Virginia Medical Association Fifty-sixth Annual Meeting Beckley, June 1923

By B. S. BRAKE, M. D., Clarksburg, W. Va.

The young doctor is not long in practice ere he realizes that a large percentage of his cases do not present the typical textbook picture. Instead of obtaining all the evidence possible, weighing and analyzing it, and arriving at an intelligent understanding of his cases, he is apt to slip into the pernicious habit of guessing at the nature of the trouble and of making snap-shot diagnoses. When you take your car to the garage for repairs the mechanic listens to its symptoms and complaints, but before he decides what is wrong he tears the car apart and sees. Yet we medical men in many cases make bold to say what is wrong with the interior mechanism of our patients without utilizing even what means we have and may employ for looking into the seat of the trouble. Urology in comparison with other fields of medicine and surgery is rich in special diagnostic instruments and methods of investigation. To stimulate a greater interest in and a larger use of these inventions in this society is the purpose of this paper.

The diseases of the urinary apparatus with which we are here concerned are renal and ureteral calculi, renal tuberculosis, Pyonephrosis, Hydronephrosis, Nephroptosis, stricture of the ureter, and polycystic kidney. Leukoplakia and Bilharziosis are so rare that we merely mention them.

Suppose that we are confronted with a patient who we suspect is suffering from some surgical disease of the kidney or ureter. How shall we proceed to prove or disprove this?

History

Let us first get a good history. Let this history be complete and not merely a urological one. Family as well as personal history is important. When it comes to the urological history, inquiry should be made particularly in regard to frequency, nocturia, dysuria, polyuria, urgency, hematuria, passing of gravel, duration of symptoms, and many other points too numerous to mention in this discussion.

Let us briefly consider some of these symptoms gleaned from the history.

Pain

The pain of ureteral colic is produced by the distention of the renal pelvis with urine as a result of some obstruction of the ureter or at its beginning. This pain usually is agonizing in character, starting in the loin and radiating downward and forward along the course of the ureter to the bladder, pubis, external genitals, or down the thigh. It usually requires a half grain of morphia to relieve it. Such a pain should cause us to think of renal or ureteral calculus, or some obstruction preventing the free flow of urine down the ureter, as blood

clots, large particles of pus, pieces of tumor or necrotic material in the ureter, pressure upon the ureter from the outside, kinking, etc. In tuberculosis of the kidney the pain is variable. It may be severe and colicy, it may be only a dull aching in the side, or it may be entirely absent. Furthermore, it should be borne in mind that the pain may be chiefly or entirely on the well side due to compensatory hypertrophy of the good kidney with consequent stretching of its capsule. The pain of hydronephrosis and ureteral stricture may amount to only an aching in the side, but hydronephrosis is particularly apt to be characterized by occasional attacks of severe paroxysms. The pain of polycystic kidney may be mild, severe and colicky, or it may amount to a mere sense of fullness in the abdomen due to its size.

The pain of ureteral and renal conditions must be differentiated from that of extra urinary origin. In acute appendicitis the pain is more apt to start in the center of the abdomen and later settle at McBurney's point. It is more apt to be accompanied by nausea and vomiting. In puzzling cases a careful analysis of all the symptoms and findings will usually enable us to determine whether the lesion is urinary or not.

Frequency

Frequency of urination may be due to a cystitis, an irritating urine, or may be caused reflexly by a stone in the ureter or renal pelvis. In renal tuberculosis frequency is one of the earliest and most constant symptoms. It is at first due to the irritant tuberculous urine, but later it is a result of the tuberculous cystitis. Frequency is a symptom which should not be passed by lightly. Its cause should be determined.

Microscopic Hematuria

The patient's story in regard to passing of microscopic blood is of value, but too much reliance should not always be paid to this unless confirmation is had. Patients often mistake a highly colored, concentrated urine for one containing blood. If blood clots are said to have been passed, more credence may be attached to this information. If we have a patient who on one or more occasions has passed bloody urine we have reason to believe we are dealing with some urinary pathology. The usual renal or ureteral lesions producing bloody urine are renal tumor, calculus, occasionally hydronephrosis and polycystic kidney. Conditions of the lower urinary tract produce hematuria and they must be differentiated by procedures later outlined. Among these are vesical tumor, vesical stone, severe cystitis, posterior urethritis, and prostatis.

General Physical Examination

We make a complete physical examination paying particular attention to the lungs. The finding of an old tuberculous lesion in the lung of a patient complaining of frequency of urination or hematuria might lead you directly to the urological diagnosis. Many blunders are made by not examining our patients generally.

Take the temperature. Fever is always important; the absence of it is equally so. In renal or ureteral calculi, renal tumor, hydronephrosis, and ureteral stricture we do not find fever unless there is a complicating renal infection. In infections of the kidney by the usual pyogenic

germs the temperature is apt to be high and of the septic character. In renal tuberculosis there is usually little or no fever.

Urological Examination

The urological examination embraces many things. It includes inspection, palpation, percussion, urinalysis, Roentgen Ray examination, cystoscopy, pyelography, ureterography, and renal functional tests.

Inspection — By inspection the general appearance of the patient is noted, cachexia observed if present. At times also a visible swelling may be seen in the loin.

Percussion — Percussion in our hands has been of little importance so far as the kidneys are concerned.

Palpation—By palpation masses, tenderness, and rigidity are detected and abnormality in the size, contour, position and movability of the kidneys may be determined. The large tender kidney associated with fever, sepsis, and leucocytosis should lead us to suspect pyonephrosis; the large irregular kidney along with hematuria should suggest a new growth. By palpation in a person with a reasonably thin abdomen we are usually able to decide whether a mass in the loin is of the kidney, or whether it is enlarged gall bladder, spleen, ovarian cyst, etc. In a patient reasonably free from fat the kidneys if normal are hardly palpable, although the lower pole of the right may at times be felt. Bimanual palpation may be facilitated by examining the patient in different postures. Rectal or vaginal palpation may at times enable us to detect a stone in the lower end of the ureter or the thickened ureter of renal tuberculosis. By rectal palpation the presence of prostatic or vesicular tuberculous nodules are determined, the discovery of which may point to the nature of the renal pathology. Rectal examination should be routine.

Urinalysis—Examination of the urine is of the greatest importance. If the patient is a female the urine must be a catheterized specimen. The voided specimen is worthless. In any case the urine must be fresh when examined. A complete urinalysis is indicated. The presence of albumen is of value.

Pyuria—We make no distinction between a leucocyte and a pus cell in urine. In a properly obtained specimen the presence of either in sufficient numbers means urinary infection. Pyuria may indicate Pyelitis, pyelo-nephritis, pyonephrosis, or renal infection complicating any other surgical condition of the kidney, as renal stone or hydronephrosis. It may be due to a renal tuberculosis; it may point to a cystitis or urethritis with normal upper urinary tract.

Bacteriauria — The presence of bacteria in a fresh properly obtained specimen of urine is important. The finding of tubercle bacilli in a urine does not mean urinary tuberculosis. It is fairly well established that the normal kidney at times excretes tubercle bacilli when the patient has active tuberculosis of the lungs, lymph nodes, or bone, etc. A diagnosis of renal tuberculosis must not be made unless pus and tubercle bacilli are found in the urine. The presence of pus in an acid urine in which other pyogenic organisms are not found should lead us to suspect renal tuberculosis. Such a finding along with frequency of urination is very suggestive of this ailment.

The presence of red blood cells

in the urine may be a confirmatory symptom of renal or ureteral calculi. It should be remembered that the absence of red blood cells in the urine does not rule out the diagnosis of stone, and on the other hand that the presence of a few red blood cells in the urine does not mean that the patient has a stone in the kidney or ureter. Not long ago the writer had occasion to make a diagnosis of acute appendicitis and decide upon immediate operation on a patient whose urine showed many red blood cells. The appendix at operation showed acute suppurative inflammation and was attached along the course of the ureter. Here the hematuria must have been due to a congestion of the ureteral mucosa as a result of a direct extension of the inflammation from the appendix.

General Appearance of the Urine

In many instances the general macroscopic appearance of the urine may be of important diagnostic value. The clear sparkling amber colored urine is not usually associated with a surgical kidney. The milky purulent urine is suggestive of pyonephrosis. The pale, opalescent, or slightly cloudy urine in the presence of frequency should lead us to suspect renal tuberculosis.

X-Rays

Now that we have studied our patient from the standpoint of symptomatology, physical examination, and urinalysis, we must decide whether we are to call upon the x-ray, the cystoscope and the renal function test to aid us in arriving at a diagnosis.

Who Should Be X-Rayed?

At Bellevue Hospital, urological department, practically every major urological case receives an x-ray examination of the entire urinary tract. This is ideal, but it cannot always be done in our practice. We have to take into consideration the question of expense and often must withhold this examination where there is no especial indication for it. It is certainly true that every case of urinary lithiasis should have both kidneys and ureters x-rayed. It is of some advantage in renal tuberculosis to have a skiagram of the well kidney, but it is not essential. A good x-ray film will show the outline of the kidneys, if the proper dose of castor oil is given the night before the patient is x-rayed. It is apparent therefore that from the ordinary x-ray plate a diagnosis of renal tumor or moderate misplacement may be made. It should be borne in mind that all renal and ureteral stones do not cast a shadow on the x-ray plate. Cabot in his "Modern Urology" states that from five to fifteen percent of cases of renal calculi give negative x-ray plates. It is to be presumed that he implies perfect technique and expert interpretation.

Cystoscopy—Indications For

All cases of suspected renal calculi whether the x-ray findings are positive or negative; any case where any other surgical condition of the kidney or ureter is known or suspected to be present, and certain cases where it is desired to eliminate the urinary organs from consideration should be cystoscoped. Certainly all cases of hematuria, except those cases where it is evident that the slight hematuria is due to a nephritis, should be cystoscoped. Any case of pyuria that does not clear up under the usual medical treatment in a reasonable length of time

should have a cystoscopic examination.

What may be observed by the cystoscopist? We note whether the instrument enters without difficulty. Recently the writer in cystoscoping a woman, encountered a definite urethral stricture. Although the examination of the bladder urine had been negative for tubercle bacilli, the presence of this stricture was suggestive of renal tuberculosis. Ureteral catheterization showed bilateral tuberculous infection of the kidneys.

After the bladder is inflated we note the appearance of the entire bladder mucosa. We note the presence or absence of cystitis, calculi, tumor, diverticulum, or prostatic intrusion. We then locate the ureteral orifices and study their position, size and contour. We note if they emit ruine and if there is any inflammation, ulceration, tubercle formation, or edema about them. In a case of pronounced hematuria we endeavor to cystoscope during active bleeding and try to determine from which ureter the blood is coming. Too often the cystoscopic examination is postponed till the hemorrhage has ceased. Again in cases of pyonephrosis the cystoscopist often may see a stream of pus flowing from the ureter of the affected side. Sometimes he may see a calculus lodged here and he may by incising the ureter for a short distance with scissors made for this purpose release the stone and relieve the patient. We next catheterize the ureters. We may use plain catheters, shadowgraph, or either of these tipped with wax. If we suspect stone in the ureter, we place a wax tip on the catheter and a wax bulb back of the eye. Bee's wax is used for this purpose. We note whether the catheter passes easily to the renal pelves, or whether one or both of them meets with an obstruction. When the wax catheter is withdrawn, we look for scratch marks. Any scratch on the wax, if the proper technique has been observed, is indicative of stone in the ureter.

With the ureteral catheters in place, specimens are collected separately for microscopic examination. After this we usually do a renal function test using 1 cc. of phenolphthalein intravenously. The renal function findings, along with other evidence obtained, often are of great value. A very low function on one side with good function on the other is suggestive of pathology on the former side provided other findings check. In a case of suspected renal calculus where the x-ray is negative a comparatively low function on the suspected side is in favor of stone provided other evidence agrees with this diagnosis. Space does not permit a further discussion of the renal function test, but it should always be done at least on the well side before any operative work is undertaken on a kidney or ureter. If there is no indication for pyelography, the catheters are now withdrawn. We note whether grasping of the catheters occurs while they are being withdrawn from the ureters. This grasping or hanging is said to be diagnostic of ureteral stricture when the history points toward that condition, and especially when obstruction is met by the catheter and the x-ray is negative for stone.

Pyelograms and Ureterograms

If the diagnosis is not plain a pyelogram or a pyelo-ureterogram

may now be made. The normal kidney pelvis contains from eight to fifteen cc. A pelvis containing more than thirty cc. should be considered definitely hydro-nephrotic. Before taking the patient to the x-ray room it is best to determine the capacity of the renal pelvis to be pyelogramed. This is done by injecting sterile distilled water into the pelvis until the patient experiences beginning pain in the loin. In this way we may avoid injecting too much of the solution in the x-ray room and we may definitely determine the presence of, or absence of hydro-nephrosis from the amount injected into the pelvis. Recently the writer had a patient into whose left renal pelvis he was able to inject painlessly 100 cc. of water and withdraw 90 cc. A pyelogram was not necessary in this case to prove that the patient had hydro-nephrosis.

With the patient in the x-ray room we inject a solution impervious to the x-rays into the pelvis of the kidney through the ureteral catheter. If we desire a ureterogram also, this may be obtained satisfactorily in most cases by withdrawing the catheter after injecting the pelvis allowing the solution to run down the ureter and taking both the pelvis and ureter by a single exposure on one large film. Sears, in the February, 1923, number of "Surgery, Gynecology, and Obstetrics," describes a method of making urethero-pye-lograms by catheterizing the ureter only to a distance of about two inches, using a wax bulb catheter. The solutions that are most commonly used for pyelography now are 25% sodium bromide and 15% sodium iodide. The writer has found the sodium bromide solution very satisfactory, having used it for double pyelograms in a number of cases without untoward effect. Either gravity or syringe method may be employed for injecting the pelvis. The important points are to inject slowly and stop when the patient experiences pain in the side. If the capacity of the renal pelvis has been determined, inject the amount it should hold and then make the picture.

By means of pyelograms and ureterograms we may determine the presence or absence of hydro-nephrosis, ptosis of the kidney, or other misplacement; kinking of the ureter, stricture of the ureter, or any narrowing or obstruction of its lumen. By the distortion of the renal calyces and by other technical points we may sometimes detect a renal tumor. Perhaps one of the most useful purposes the pyelo-ureterogram may serve is to locate in a definite portion of the kidney or ureter a shadow which is presumed to be stone. Thus we may determine in which calyx the stone lies if it is in the cortex, parenchyma, pelvis or in the ureter. If we have a shadow along the course of the ureter and are unable to decide whether this shadow represents a stone in the ureter, a calcified lymph node, phlebolith, one or more skiagrams made with an x-ray catheter in the ureter will clear up this point.

We have discussed the usual procedures employed in making or disproving the diagnosis of a surgical condition of the upper urinary tract. Sometimes the diagnosis is apparent without going through with all of these examinations. It is possible in many instances to omit only one of these examinations and fail in the diagnosis through this omission.

Again we may make every known investigation and still be forced to decide between two or more possibilities. In such cases we can only weigh the evidence obtained from the various sources, and make no diagnosis which is not sustained by the character of this evidence.

DIAGNOSIS AND TREATMENT OF RENAL CALCULUS

Read at the Fifty-sixth Annual Meeting of the West Virginia State Medical Association Beckley, June 1923

By J. E. RADER, M. D.
Huntington, W. Va.

Methods of diagnosis and localization of renal stones have in recent years been developed to such a degree of accuracy that the percentage of error has been reduced to a minimum.

Among the theories that have been advanced as to the cause of lithiasis, is that it is bacterial in origin, and is due to the slowing of the urine flow in the kidney, that deposits are formed in the ureter from back pressure of the urine, and then float back into the kidney. The majority holding to the belief that calculi are bacterial in origin.

C. H. Mayo, in a recent paper on this subject says "that stone formation is evidently the result of the combination of two types of bacteria, the first creating an infraction with minute necrosis, causing mucoid exudate; the second factor is the elimination at the same time of the stone forming bacteria that may come in contact with the mucoid material. If the stone originates in the cortex of the kidney its growth will be slow but if it originates in the calyces or the pelvis, growth may be more rapid because of the ease with which its chemical material is secured."

The disease occurs more frequently in men than in women, and while it may be found in every decade, a large percentage of cases occur in the third and fourth decades. The disease is, in a great majority of cases unilateral, although according to Brassch stones will be found in both kidneys in approximately every sixth person, suffering with renal lithiasis. The stone may be large or small, the large ones usually occurring in the pelvis of the kidney. Renal colic plays a minor role in the diagnosis of stone in the kidney proper; it is, however, one of the cardinal symptoms after the stone has passed into the ureter. A large stone however may plug the mouth of the ureter and produce typical renal colic; more often the pain is a dull soreness in the back, and referred down the ureter to the external genitalia; sometimes the pain is more severe coming in paroxysms, and may be referred to the sound side. Generally speaking, the smallest stones give rise to the most severe and frequent attacks of pain, leaving the task of undermining the patient's general condition by the production of pyonephrosis to large or multiple calculi. While it is generally known that calculi may be "silent" either throughout their entire residence in a kidney or for a long period of time, the production of pain is their habit, and it is pain in most instances which forces the patient to seek relief.

About sixty-five percent of cases with stone in both kidneys have pain on one side only. Hematuria occurs most frequently after the

stone passes into the ureter, but may occur from a stone in the pelvis. It is usually mild in type but may become alarming. Pyelitis with severe pains in the back usually occurs after the stone has been present for some time; also sweats, rigors, intermittent pyrexia, and it is usually at this stage that we find quantities of pus in the urine. We can never be sure of the diagnosis until the X-ray and cystoscope have been used. In the X-ray examination the second plate should always be used provided we have any doubt in regard to the diagnosis. Cystoscopy, ureteral catheterization, functionization and pyelography should determine the condition of both kidneys as to function, size of pelvis and amount of pus.

In the diagnosis it must be remembered that many intra-abdominal conditions simulate renal calculus, and in some instances the best surgeons err. It is sometimes very difficult to make a differential diagnosis between acute infection in the right side of the abdomen and renal or ureteral stones, as occasionally both the urine and X-ray findings are negative.

When we have obtained the above data we are then ready to consider the treatment, and as there is practically no medical treatment, we will have to decide between the policy of watchful waiting and surgical intervention. Of course in acute attacks the use of morphine and atropine hypodermically followed by the injection of two ounces of glycerine with large quantities of distilled water may be of some value in aiding the passage of stones spontaneously, especially when patient is immersed in a hot bath. Again stones may be aided in their passage by dilatation of the ureter with bougies, the use of oil injections and local anaesthesia above the calculus.

Brassch of the Mayo Clinic has outlined some important points to be considered before operation is recommended. Among the most important of these are: First, duration of symptoms; second, size of stones; third, situation; fourth, number of stones; fifth, certain types of bilateral lithiasis; sixth, low renal function, and seventh, complications in other organs.

In determining the advisability of operation the duration of symptoms should be a considerable factor. It is not generally realized that about seventy percent of small stones pass spontaneously and a majority of these will probably pass within three or four months following the first symptoms. It is therefore in all probability inadvisable to recommend operation for a stone in either kidney until from three to six months have elapsed since the onset of the first symptoms.

Immediate operation for stone following the first or second attack of pain is therefore to be strongly condemned without evidence of other complications. Nature, the great surgeon, should be given an opportunity to remove the stone without surgical intervention. There are of course exceptions to this rule, such as excessive pain continued over a period of several weeks or months, evidence of perinephritic infection or evidence of sufficient urinary retention to endanger the kidney. Also when it is evident that the stone is too large to pass, nothing will be gained by delaying an operation.

When the X-ray shows the stone

to be less than one cm. in diameter, operation should be postponed in the hope of subsequent passage, as there is great danger of too much destruction of kidney substance in the search of so small a stone. If the symptoms be indefinite and the shadow uncertain, immediate operation should not be considered. Stones situated in the cortex or in the calyces, as a rule cause less damage to the kidney substance and produce less acute symptoms than in the pelvis.

The urgency for operation is therefore not so great. When a stone is situated in the lower ureter, every opportunity should be given for its spontaneous passage. We have recently had a case in which the stone was located in the ureter. This case was kept under observation for six or eight days, X-ray pictures being taken every second or third day, and every opportunity given for its spontaneous passage which it did finally, passing into the bladder.

Rarely is an operation indicated when a small stone is situated so as to partially protrude from the meatus. When the X-ray reveals the existence of more than one stone in the kidney, even though they are of small size which may pass spontaneously, it is probably advisable to operate as the time elapsing for spontaneous passage may permit of considerable renal damage.

In routine examinations it has been found that stones occur in both kidneys in approximately every sixth person suffering with renal lithiasis. These cases should be studied very carefully before advising operation. If the symptoms are not acute and the stone very large and multiple operation is inadvisable, as the removal of such stones situated in both kidneys is accompanied by too much destruction of the kidney tissue, and the chances are that the patient will live as long and comfortably without operation. A careful test of the function of both kidneys is very important, for upon this will depend in a large measure as to how radical we may be.

In unilateral nephrolithiasis with good function in both kidneys lithotomy of some type of course is considered. Operation however may be justifiable with acute symptoms, even though the renal function is below normal. The reaction of a patient following the removal of renal stones is surprising even though their functional test is below ten or twenty percent.

A renal functional test below ten or twenty percent will frequently become practically normal after the stones are removed, especially when they are bilateral. Lesions in other organs are frequently found coincident with nephrolithiasis which may influence the advisability of operation and bring up the question of which lesion should have precedence in treatment. Among the more common of these are lesions in the gall bladder, appendix, duodenum and prostate.

As to treatment a careful study of each case should be made. The preoperative management should include forced fluids and a nonnitrogenous diet for a few days before the operation, and should be given the benefit of complete functional tests of both kidneys together with a series of X-ray pictures.

In the removal of stones any of the following methods may be used, named, as we believe, in the order

of their relative preference, viz: Pyelotomy, nephrotomy and nephrectomy.

We should not be too conservative or too radical as each one of the three methods has a definite indication. Each case should be studied individually and given the type of operation which our best surgical judgment dictates. Of the two conservative operations pyelotomy can busually be done with less damage to kidney tissue and less hemorrhage than nephrotomy, especially if the stone is located in or near the pelvis. In many cases, however, when the stone is located in the cortex or calyces, it is more accessable through the cortical incision. Hemorrhage may be avoided by an incision made along the convex border of the kidney, just posterior to Brodel's line, which is the least vascular portion, while the thumb and forefinger of the left hand compresses the pedicle.

This incision is also desirable for exploration when the stone cannot be felt, and does not cause so much destruction of the renal tissue as repeated acupuncture, as practiced by some operators. Of course, the ideal procedure is to have a portable fluoroscope which is placed alongside of the operating table and when the kidney is elevated into the incision above the level of the skin surface, having the roentgenologist point out the stone with an aseptic glass rod, and if, as sometimes happens, there are no stones, the added risk of an incision into the kidney is avoided. However, as the ideal arrangements are not accessable outside of the large clinics, those of us who do not have access to them must use the exploratory incision which is easily closed by interrupted sutures through the kidney substance and a continuous suture through the capsule which usually controls all hemorrhage. The peri-renal tissue should be drained with rubber tissue or cigarette drain.

Nephrotomy is preferred in most all cases of multiple stones, while pyelotomy is preferrable in most cases of single stone. We have, however, recently had two cases that the reverse of this rule was true.

In a majority of cases of pyonephrosis with stone, nephrectomy is imperative. In many instances where conservative operations are done on border-line cases, nephrectomy becomes necessary as a secondary operation. It is our practice whenever possible to remove the kidney at the first sitting, from the fact that a secondary nephrectomy for any cause, at any time, is an uninviting procedure. Of course we do not wish to be understood as advising a primary nephrectomy in those cases where the life of the patient would be endangered, which is often the case, which may be likened to the fate of the base-runner who tries to stretch a single into a double, only to be put out at second.

Especially trying are the secondary nephrectomies when done by the usual method of going through the old scar in the loin, from the fact that dense adhesions and cicatrical tissue are encountered, the separation of which diverts infected into clean areas, with anatomic relations completely altered.

Some operators prefer to approach the kidney through an incision in the abdominal wall, getting at it from its clean side drain-

ing posteriorly through the former incision. Of course before considering a nephrectomy by any method we must be sure of the presence of another kidney with good function. While we must always be radical enough to get results conservatism when possible should be our aim.

Conclusions

First: That a majority of small stones will pass spontaneously, probably within three or four months following the first symptoms.

Second: Immediate operation for small stones following the first or second attack in the absence of complications is not warranted.

Third: Many stones can be assisted in their passage by dilatation of the ureteral oil injections and local anaesthesia above the calculus.

Fourth: A complete X-ray and urologic examination should be made, in every case in which stones are suspected.

Fifth: Pyelotomy is certainly the operation of choice and may often be combined to advantage with partial nephrotomy.

Note: We are indebted to Drs. L. T. Vinson and J. C. Kessler for the X-ray pictures, to Drs. J. E. Hubbard and Aubrey C. Belcher for the pyelograms, cystoscopy and functional tests, to Dr. F. C. Hodges for the blood urea retention tests, and to Dr. C. R. Madden of the Kanawha Valley Hospital for mounting the lantern slides.

Discussion

Dr. W. S. Robertson, Charleston:

I do not feel that I can add very much to what has been said on urology, and what I have to say will simply be an illustration by slides of a few concrete cases.

There is one point to which I wish to call the attention of the Society, and that is the relative infrequency of accurate diagnosis in urological conditions. In the last fifty cases that I have been privileged to examine there were thirty-seven women, twenty-nine of whom had been operated on at least once for some other, supposedly intra-abdominal, condition. On these twenty-nine women there had been performed thirty-one operations, without any relief. Of the thirteen men, four had been operated on for appendicitis, so there were thirty-five operations done in a series of fifty cases. If you will pardon a slang expression, there is certainly something rotten in the state of Denmark when this occurs.

I believe the greatest single cause of pain below the diaphragm is renal colic, and when I say renal colic I do not mean calculus, because we shall have ten cases of renal colic resulting from other causes to one from calculus.

Another thing mentioned was when you have a case of cystitis you should have a urological or cystoscopic examination made. I believe there is no such thing as an uncomplicated case of cystitis. These cases of cystitis and frequency are simply an expression of some complication in the urinary system. Personally, I have never seen a case of simple cystitis. If a case of cystitis does not yield to mild treatment, such as flushing out the bladder with boric acid solution, then there is certainly strong indication for complete urological examination.

* * *

Dr. E. O. Smith, Cincinnati:

I have been very much interested

in the papers that have been presented, and in the discussions and slides of Dr. Robertson. Regarding the first paper, "Diagnosis and Treatment of Surgical Conditions of the Kidney and Ureter," I just want to emphasize a few points. They have been presented to you many times before, no doubt, but we still see patients who are treated symptomatically by internal medication for a period of months who should have, for the benefit of both the patient and the doctor, a urological examination. There are a number of indications for urological examinations which I want to emphasize again. About the most frequent one is pus in the urine that does not clear up under ordinary treatment in a reasonable length of time. The next is blood in the urine. Blood in the urine is certainly indicative of some pathological condition, not always in the urinary tract. Persistent frequency of urination, with occasional pus cells, and painful urination, are other indications. Then urological examination should be used for differential diagnosis of conditions of the abdomen.

Now, for the making of our urological examination, we have most of these cases sent to the hospital. We are doing practically all of our cystoscopic examinations at the hospital, for this reason—many patients who are sent in for examination need something more than a mere cystoscopic examination. Even a cystoscopic examination is a time-consuming procedure, and some of the patients in whom you do a single ureteral catheterization or a double ureteral catheterization have considerable pain, have so-called renal colic. These patients will go to the hospital, will do anything you tell them. We have at the hospital a cystoscopic room in which we have an x-ray unit, so that if we have started our examination we can take an x-ray picture or can make pyelogram or a cystograph, or what not, without removing the patient. We also have a so-called office unit, which can be moved around over the room or rolled up to the patient. We find it very helpful, in that way, to have the patient in the hospital.

Yesterday morning we had a patient who was sent in for hematuria. This particular case was somewhat disappointing to me as a teacher. It seems to me that we are not very effective in our teaching, in that this patient is a man who has had blood in his urine persistently and continuously since last January, and during the first three months of that time he had been treated symptomatically by one of the recent graduates of our school, and if there is anything I try to get across it is this indication for urological examination, this being among the most prominent. This man's physician had served as an intern on my service for four months, yet he treated this patient symptomatically for three months, telling the patient he was not sure whether he had a papilloma or something else. This patient came to the office for examination, but I sent him to the hospital. We put him on the cystoscopic table and had a radiograph made of his urinary tract. The next thing we did was to cystoscope him, without finding anything. We catheterized the ureters, and found all the blood coming from the left side, and found all the evidences proving that he has a surgical kid-

ney. I mention this case as showing the advantages of having the patient in the hospital, where we can do all that is necessary to be done. We can make a complete urological examination, so far as the cystoscope and x-ray are concerned, and do it very satisfactorily to the patient. Some of these patients have some pain afterward, and it is better that they stay in the hospital for twenty-four hours.

I notice that some of the plates show bilateral pyelographs taken simultaneously. They make beautiful slides. Sometimes we have some rather unpleasant results from bilateral pyelograms. They may cause the patient a great deal of pain, a great deal of discomfort, and may do something worse.

Now, as to the subject of renal and ureteral calculi, you have a number of lantern slides which are very instructive. A minute or two ago I said there are some renal symptoms which are due to conditions outside the urinary tract. Some time ago I had a patient referred for blood in the urine, and the blood was found to be coming from the right side. All sorts of examinations and tests proved the kidney to be functioning properly, with no obstruction, no strictures. On further examination it was found that the patient had gall-bladder trouble, had gall-stones, and when the gall-stones were removed and the gall-bladder treated surgically, the hematuria ceased. In this case it would have been possible for the urologist to make some of the errors which we charge up to the abdominal surgeon. In another patient there was profound left side hematuria, with a mass in that region suggestive of a kidney tumor. I made the examination for a general surgeon and he did the operation. We found a perfectly normal kidney, apparently, but found, however, that he had a large pancreatic cyst, which was taken care of surgically, and the hematuria ceased almost immediately. So we have these extra-urinary conditions which will produce symptoms in the urinary tract.

Nothing has been said, I believe, about the end results, and I do not know whether or not I should introduce a new argument into the case. It is interesting regarding the end results of urinary calculi, urinary and ureteral. It is known that a certain per cent of these cases have recurrences of urinary pathological conditions, not necessarily urinary calculi. I recall three cases now in which the urinary calculi developed again after removal from the kidney. We find in bilateral urinary calculi the most interesting results. We find patients with large calculi in both kidneys who are apparently comfortable and are going about attending to their work, and, under these conditions, when the patient is not keen for an operation we do not operate, because sometimes these patients do not do very well after operation. They may live as long without operation as with it, and sometimes longer.

We come across cases, sometimes, of patients with one kidney with urinary calculi. Probably the most illuminating case I have had is that of a man now over sixty years of age, upon whom I operated some years ago, the first time for prostatic stricture. He had been to various specialists; had been to New York and consulted some of the best specialists there, and was told that

he had diabetes, cancer of the stomach, nephritis, and other conditions. When I was called to see him he was semicomatose. I was told that he had been lying in a hammock a few days before, and there was a little pool of urine on the floor. This was suggestive, so we introduced a catheter and drained off eighty ounces of urine. He was drained for three months, and improved a great deal. Later, having some urinary symptoms, he went to a distant city and had his left kidney removed, which was said to be a dead kidney, with a calculus. Later I was called to see him for anuria. Attempts to catheterize him were unsuccessful. He was septic, was uremic, so we operated, and found the tissues waterlogged. This was the only kidney he had, and was not an entire kidney. We opened up the kidney, finding a great deal of infection, and removed a calculus and put in a two-way drainage tube. We kept up frequent irrigation through the two-way drainage tube to the pelvis of the kidney, and, much to our surprise, he recovered. That was about two years ago, and he is today apparently a well man, going around doing his work as president of a large insurance company, and if you saw him on the street you would think he had never been ill. He has only half of one kidney, which is doing the work performed for most of us by two kidneys. That shows that a patient can get along with a very small amount of kidney, and get along very well.

Another emergency condition is bilateral ureteral calculi which are blocking the ureters. We find these cases once in a while where it becomes necessary to do an emergency operation. Sometimes they are in such a condition that about all you can do is to take an x-ray picture.

Now, about urinary calculi in the very young. We have found staghorn calculi in the pelvis of the kidney of a boy six years of age, who had been sent to a hospital for enuresis. That emphasizes the importance of making a complete examination when enuresis is one of the symptoms. Sometimes we do not have to make a complete examination for diagnosis, but can determine it from the x-ray plate. Once in a while we find young children who have very large calculi in the urinary bladder, which have been there for years but were not discovered. So in these young children we follow the practice that an x-ray picture is the simplest and easiest thing you can do, and does not hurt the patient, and once in a while we are awarded by some real information, such as renal calculi.

THE FOURTH OR PHYSIOLOGIC ERA IN SURGERY

Address Delivered Before the West Virginia Medical Association, Beckley, June 1923

By ROBERT T. MORRIS, M. D.
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It was in 1882 that I first began active surgical work, and that was forty-one years ago. In that period of forty-one years I have had the great opportunity to overlap three separate and distinct eras in surgery. Changes are taking place fast nowadays.

The first era in surgery was the heroic era; the next anatomic; the third pathologic, and the fourth is

the physiologic era. We are just going into the last one now, and whatever I shall say on that subject this afternoon will be heresy to third era surgeons.

The first era, the heroic, is still in use in some parts of the world, say in Africa. When Caesarean section is to be performed, the native blacks make the patient intoxicated with palm wine, make the incision and deliver the child, and some of these patients recover. In olden times, in cases of stone of the bladder, when the bladder was distended, quite ordinary people had the sense to open the bladder and allow the stone and the urine to escape. There are many fields in which heroic surgery, without any philosophy, was the order of the day. Even today, if a farmer's cow gets out of his poor pasture and into my good clover fields and becomes distended with gas, the farmer plunges his knife into the stomach and allows the gas to escape. That is heroic surgery.

In the second, or anatomic, era of surgery, great progress was made. In the days of Andreas Vesalius and Hunter and other great anatomists great progress was made, and surgery was carried to such a point that Baron Larrey Napoleon's surgeon said that surgery had reached its limitations. There was nothing more for all time in the future for surgeons to do excepting to learn what was already known and to perfect their technic. A great autority, then at the height of the second era, said that surgery had reached its limitations and that nothing more was to be known; that we could only perfect our technic. Since that time we have had the third era; the fourth era; and the Lord only knows what the fifth era will be like.

Each era has left us something. How about the third or pathologic era? That is the one in which the enormous, almost the explosive, advance in surgery took place. The advent of asepsis and antisepsis, through the work of Pasteur and Lister, allowed such an enormous advance that surgery went into the hands of thousands of incompetent men who had no right ever to touch a knife, men who made improper diagnoses and who did an enormous amount of wrong surgery—surgery that should never have been allowed to be done under the protection of asepsis, antisepsis and anesthesia. My old friend, Dr. Richardson of Boston, said it was a pity that so many patients recovered after surgical operations. This was because of the fact that surgical operations were being done by men who had little conception of the principles of surgery and who had little surgical judgment in handling their cases. The conception of the third era was this: The surgeon was to remove bacteria and their products and prevent the development of microbes. This was done conscientiously and thoroughly, and great harm was sometimes done our patients. The third era is the one that still prevails throughout the world. Men with good ideas of asepsis and antisepsis, and with the comfort of new anesthesias, get wrapped up in technic and often spend an hour or more in operating upon a patient, forgetting the fact that destructive impulses are being shot into the centers of consciousness of the patient every minute under surgical procedure and when

the viscera are being handled. That was one of the faults of the third era of surgery, when we devoted ourselves to bacteria and their products, and to making a very perfect technic, going too deliberately about our surgical work. During the third era of surgery, which is still at its height, a number of errors have crept in, and faults which belong with the virtues,—too deliberate approach, too much handling of the viscera, too much cleasing of wounds, too much delay (which is shocking to the patient) have been introduced unconsciously into our surgical work.

But in the fourth era of surgery, the physiologic era, we have a quite new outlook. We depend upon the resources of the patient himself. The third era was based upon the work of Pasteur and of Lister; the fourth era is based upon the work of Metchnikoff, and of Wright. We know now about opsonins, about internal resources which are brought to bear promptly and immediately when the condition of sepsis calls for protection. This physiologic era, the fourth era, is quite a new era, and is one about which we are to learn much during the next ten or fifteen years.

In the fourth era of surgery our idea is to give the patient home rule, to turn the patient over to his own resources as quickly as possible, as simply as possible, and with the least degree of damage to his machinery, to his protective machinery, his machinery which manufactures phagocytes and enzymes which are to meet the enemy. We are to avoid injuring his protective cells, his normal cells. In the course of the third era of surgery, when we used antiseptics we often destroyed the living cells in the vicinity of a wound or an infected area by means of our germicides. Almost all of our early antiseptics not only destroyed the bacterium, but destroyed the guard cells about the wound, which were designed to meet the bacteria and carry on the warfare. So almost all the germicides—bichloride of mercury, peroxide of hydrogen—used conscientiously and with the best knowledge we had, injured the normal cells which were competent and ready to meet infection.

In the third era of surgery, for a concrete example, in Boston, in cases of acute appendicitis with abscess, they were making large incisions, counter incisions in the flank and putting in drainage devices in various directions. In Baltimore, at the same time, they were eviscerating the patient, turning out loops of bowel, and flushing it. Both of these procedures, in Boston and in Baltimore, were based upon excellent principles belonging to the third era of surgery, but at that time those of us who were developing the principles of the fourth era were not making extensive incisions or multiple incisions; we were not washing or flushing the abdominal cavity. We were making small incisions, doing it quickly, doing it with the least injury to the patient, and getting through as soon as possible. It was what might be called neglective surgery. Dr. Bull at that time said to me, "I believe you are right, but it makes my blood run cold." Few surgeons were prepared to adopt that method. Appendicitis death rates obtaining at various hospitals—some of the best hospitals—according to published reports at that time, were seventeen percent, on an average. At one hos-

pital in New York, where many emergency cases were handled, the death rate was thirty-one percent in appendicitis operations. One surgeon in Chicago published a report of fourteen consecutive appendix operations with fourteen deaths. At that time, when I reported a series of one hundred consecutive cases with two deaths it was received with a great deal of skepticism —but many of you are now getting better results than that.

The one man in New York whom I could persuade to take up the principles of the fourth era of surgery at that time was Dr. Hotchkiss. His hospital death rate was thirty-one percent. He turned from third era to fourth era in surgery and immediately had a series of seventy-six cases of appendicitis without any deaths. Remember—his death rate had been thirty-one percent; then he had a series of seventy-six cases without a death immediately after adopting the principles of the fourth or physiologic era.

Let us go back to the consideration of more simple cases. In the case of an ordinary abscess, if we open the abscess and try to press out the pus we do two or three wrong things. The pus in an abscess is commonly sterile, or nearly so, as all know who have looked in it for bacteria. The bacteria are at work in the tissues, not in the pus. The pressure hurts the patient. If you make a simple opening of the abscess, without attempting to wash it out or flush it out, without making any response to the gross idea of cleanliness which might belong to the kitchen maid—if you had the luck to have that kind of a maid —if you make the simple incision, without washing, without flushing, without doing anything more, and leave the pus to be evacuated by the elasticity of the tissues, you have done the right thing, according to the principles of the fourth or physiologic era of surgery. Nature is right in her home-rule principles when protecting that patient against further infection. In cases of ordinary wound treatment at the hospitals I have great difficulty in getting my young assistants and nurses to avoid wiping or flushing pus from open wounds. They are destroying the new hyaline epithelium which is being shot across the the wound, and they are obliging nature to make excessive effort at repair. So I tell them not to touch the wound surface. (This is heresy which I am teaching now.) Wipe around the wound with a plain saline solution, using no antiseptics, then put on the protecting dressing.

Peroxide of hydrogen is frequently used by surgeons and nurses for cleasing wounds, and one may keep a wound going for a great length of time by using peroxide of hydrogen, which, unfortunately, I brought into general use. In the course of forty years of practice I have done so many wrong things and made so many mistakes that I have no faith in anybody who puts any confidence in me at all. That article I published about peroxide of hydrogen was re-published widely, and I am mighty sorry that I ever brought this antiseptic into general use, for it has done much more harm than good.

According to the principles of the physiologic era, we do not cleanse our wounds by washing, wiping and flushing. We cleanse the margin but leave the rest intact, allowing nature to do the work. In the fourth

era of surgery, for instance in abdominal work, in acute perforating gastric ulcer, I have taught heresy for years, and my position is very strongly attacked by some of our best surgeons. In these cases of acute perforating ulcers of the midgut area, duodenal ulcer, etc., I give a glass of methylene blue, so that I can see the point of perforation, anesthetize the patient, get down as near the perforation as I can, quickly put in a drain and then run away. I do not stop to take up the escaped gastric contents. Then I follow up with the Alonzo Clark opium treatment. Do not think you can wash off or flush out escaped gastric contents. You can not do it. You can get a lot, but you will leave a great deal. Try the opium treatment, stop the peristalsis, and you will be surprised to find how often you get good results.

In one case this fourth era surgery was done for one of our doctors, a very prominent man, who had perforation of the duodenum. He and I were both so busy that we could never set a date for closing up his fistula afterward and it finally closed spontaneously after a year or so.

Heresy belonging to the fourth era also extends to bladder surgery. I do not put in any long drainage tubes, with a sterile bottle under the bed and a lot of paraphernalia. I do not do that at all. I do the operation very quickly. Sometimes a two-stage operation, depending upon the amount of phenolphthalein the patient is passing. Over the wound I put a mass of spagnum, ordinary sphagnum, to catch the urine which escapes. Instead of that patient, under that treatment, being distressed and lying on his back for several days, with a tube under the bed and elaborate apparatus, you will often find him impatient to get out of bed and sit up on the next day following the operation.

These remarks will cover the ground, or at least give rise to discussion. I find in traveling about, going before society meetings, my profit comes from discussion, which brings out the different points of view of other men. That makes it very profitable, and the idea has been chiefly to present here matters which will arouse discussion.

A question is asked about typhoid perforation. In that condition I sometimes have done a complete operation in less than two minutes. In one case, down at Maplewood, New Jersey, forty-five seconds was the time for a complete operation. Incision, inserting the drain, and closure occupied forty-five seconds. That patient got well, but I do not believe, if we had spent a lot of time getting in, flushing out the peritoneal cavity, and closing up the bowel, that he would have lived through it. I was called for a gastric perforation the next day, but could not get to that case. They told me afterwards that a very excellent operation was done, occupying less than an hour, but the patient was in such condition that he lived only a few minutes after getting off the table. Now, he might not have lived any more surely after a three-minute operation, but the three-minute operation would belong to the fourth or physiologic era of surgery, in which home rule has sway.

Discussion

Dr. John E. Cannaday, Charleston:

I have felt very often that many

of us are too much inclined, both in the medical profession and the laity, to give too much credit to science and method and too little to nature's resources, that we meddle too much in the care of patients and in the dressing of wounds, too often unduly prolonging convalescence by such interference. I remember that some years ago Dr. Morris used the phrase, "judicious neglect." That is very useful. Too many of us have the inborn trait of wishing to gild the lily or refine gold, but hands off. I wish it were possible for Dr. Morris to make his address before every medical society in the land, and that every physician in the United States could hear his views and become familiar with them. I feel that the physiologic era which he has described is with us, and will be more with us as the years go by. There are so many things in nature's laboratory, in the laboratory of the human anatomy, that take care of the human body, that fortify and look after the little emergencies, provided they have just the least little direction. Nature is a kindly creation and, just like physical phenomena, needs just a little guidance sometimes, rather than doing violence. Sometimes we think we make a wound heal by washing it out with strong antiseptics, putting in rigid tubes, packing it full of gauze, etc., when by merely opening the abscess when it comes to a point we get good results.

* * *

Dr. O. B. Biern, Huntington:

Would not the same principles apply to internists, in the treatment of disease?

Dr. E. O. Smith, Cincinnati:

I certainly enjoyed Dr. Morris's remarks. I find that we have been practicing some of these things in our work, but did not recognize that we are in the physiologic era. We have just been calling it common sense, which all of us can understand, but we certainly enjoy this dignified classification. Some time back, when I began doing general surgery, I had been working for several years with a man who did abdominal surgery and who had been following the old practice of depriving his patients of water to drink for many hours before the operation and, in addition, giving active cathartics, thus depriving the patient of practically all the fluid in the body, and for forty-eight hours after the operation the patients were deprived of water unless they could steal it. That did not seem to me like good common sense, so when I began operating on my own account I began allowing the patients to have water up to within an hour before the operation, and instead of giving saline cathartics gave castor oil or a mild laxative, and allowed them water as soon as they could swallow after the operation. My patients were so much more comfortable that I became very popular, and there were no bad results at all from the fluid.

We are also treating our bladder cases without drainage tubes, and have been doing it for some years. We are even teaching our students, in what abscesses we do have, simply to make the incision and leave it alone, not squeeze it, not pack it, simply dress it each day to keep it clean. The idea is very difficult to get across, but they feel that as long

as they can squeeze pus out they should maul and massage the tissues.

Another thing in which we should be careful is prostatic abscess. Many of them can be ruptured into the urethra by gentle squeezing, or even leaving them alone. If it is necessary to make an incision, then do it gently, and do not treat it too much.

* * *

Dr. Tom A. Williams, Washington, D. C.:

I feel very much tempted to draw a parallel, after hearing Dr. Morris's delightful remarks, which I believe are not so iconoclastic as he thinks they are, because I believe a good many men are thinking that way, though I do not know how much Dr. Morris has contributed to that way of thinking. Of course, it is common sense. It was common sense in the anatomic era; it was common sense in the heroic era, when the farmer stuck a knife into his cow. It is uncommon sense that we need. The conditions in our day, with which we deal, are not anatomic, because we know anatomy. As the Frenchman said, for all intents and purposes we have reached the acme of anatomical knowledge, but we are very far from having reached the ultimate point in the pnysiologic point of view. I can not quite agree with what Dr. Morris said about the three eras of surgery, because the surgeons of thirty years ago were thinking physiologically, though it was bad physiology. Most of us medical men are not looking for alteration of structure, but at the processes going on in the body, and that is physiology. As we go further and further in that direction we shall make fewer and fewer mistakes, which Dr. Smith calls lack of common sense and which Dr. Morris calls lack of physiologic era.

I would like to draw a parallel in my own specialty, neurology. Psychology is simply physiology; it is physiology of the integration of the higher nervous system. It is none the less physical in essence and basis, and it is the study of reactions—not chemical reactions but physical reactions measured in behavior and conduct. Now there happens to be a school of psychologists that is so conspicuous that many think they are the only school. They do exactly what Dr. Morris said the surgeon should not do. They get hold of an abscess—I am speaking figuratively—and squeeze it and squeeze it, and often the patient is worse at the end of the treatment than at the beginning. They destroy the patient's own resources.

Let me give you an instance. I was, week before last, in New York, addressing the New York State Medical Association. Some one came up and said, "I have not seen your book, it should be there." So I went and told the librarian. She said, "Yes, I saw that title, but did not get it." I asked why, and she said, "Well, we have so many books on psychanalysis, and they are all the same, so I did not get it." I said, "Well, it is not a book on psychanalysis."

It would be just as reasonable to say that all surgeons squeeze abscesses and do the sins which Dr. Morris warned us against as to say that all psychanalysts perform the same things in their field. I suppose that other specialists would be able to say the same thing about

their specialty. The current practice has not reached the perfection which some men who are teaching new methods think it has reached.

* * *

Dr. Morris, closing the discussion:

First, about carrying back the principles of the fourth era to the internist. We have had a fine object lesson in that direction. The principles of the fourth era were forced upon us by the Homoeopathists. While we were trying to accomplish things by giving drugs extensively, by faith in elaborate therapeutic resources which included the use of very distressing drugs, sometimes the Homoeopathist, giving no real drugs at all, managed to get a lot of patients well who would not have gotten well under the therapeutic attacks common in our day. I remember how I dreaded to see the old family doctor come up to the house when I was a boy. The Homoeopathists, then, introduced the principles of the fourth era without knowing that they were doing it. Christian Scientists did the same thing.

As to advance preparation of patients, I have known surgeons who wanted to have patients in the hospital a week in advance, so that they might prepare them for operation, have the bowels thoroughly cleansed and have a number of things done. But the introspection of these patients did about what the spider does to her mate, she destroys her mate. This elaborate preparation, done conscientiously, was largely injurious, I believe. We had something of a joke at one of the hospitals where we have a good deal of emergency work. One of my assistants asked: "How is it that these patients who are brought in with strangulated hernia, perforated gastric ulcer or intussusception, and whom we do not even have time to shave, do so much better than patients who have had regulation preparation?" I said, "It is because you have not damaged them with your advance treatment." You see, doctors ought to wear blinders much of the time. In pyosalpinx, for example, the tubes are all swollen and bulging out, no fimbriae in sight perhaps; they look about as bad as a testicle would look in acute orchitis, but you do not take out the testicle. What is the fourth era idea here? Split the tubes, put in drains, and anchor the tubes to the abdominal wall, begin vaccine treatment. After three months the tubes are round again, there are often new fimbriae to be seen. The patient is ready to have children—extra-uterine pregnancy perhaps at times but we do not fear that if the patient is warned and has prompt operation.

As to Dr. Williams' parallel, I think that is a beautiful thing. We surgeons were the ones who began to make fun of the psychanalysts first. Freud and Brener had the case of a girl with hysteria, and in that particular case when they produced "a catharsis of the repressed ideas," the girl got better. So they decided that all cases of hysteria related to repressed emotions and went back to a sexual basis. But I believe that people now are coming to a common sense view in regard to Freudianism. We can not avoid these things; they go through the profession like an epidemic of measles.

MENTAL HEALING AND OTHER CULTS.

Read Before the Marshall County Medical Society

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Before we go any further let us give what we mean by cult. One definition given by Webster is that it is: "A: The Rites and Ceremonies or Externals of a religion as distinguished from its inner meaning or truth. B: Great or excessive devotion to some person, idea, or thing, especially such devotion viewed as a sort of intellectual fad or as the enthusiasm of a body of self-constituted admirers or followers."

Both of these divisions should be remembered because the first says it is a matter of the outer as differentiated from the inner meaning or truth. The second brings in the word "fad," and the enthusiasm of a body of self-constituted admirers or followers. In these two divisions of a definition are all that there is to this subject. If it wasn't for the looks of the thing, this paper could stop right here, and the case of Mental Healing, Cults, Irregular Practitioners and Pseudo Medicine, as practised throughout the ages, could be summed up in these two paragraphs and be understood by everybody with a fair amount of intelligence. But, unfortunately perhaps for me, and very unfortunately for you, it is necessary for me to write a paper for this meeting, but remember this, that all I will say hereafter will not add a grain to those terse brief words as given by Noah Webster.

Furthermore, I shall try, even if I do not succeed, to be fair. But I realize, and so do you, that I start out with a handicap. I might be, or at least if I couldn't some other doctor might be, one hundred per cent fair to all these various so-called modes of healing and still their adherents would cry out that envy, jealousy, malice and their successful cures (where we failed) colored the words, made them prejudiced and in effect, not worth listening to by people who would have the truth. So, as I say, I shall give the truth as I see it, recognizing it is pragmatic and that a miracle may happen tomorrow or even tonight. I shall quote, when occasion arises, from "Three Thousand Years of Mental Healing" by George B. Cutten, Ph. D. (Yale), President of Acadia University; Charles Scribner's Sons, 1911, and from the Journal of A. M. A. without further reference.

To begin with, I shall make this statement, with which most of you, in fact perhaps all of you, will disagree, and that is "After all is said and done, physicians and surgeons are regarded by the remainder of mankind in the nature of aliens and enemies. Now, one of our best men read a paper in Wheeling on the "Passing of the Country Doctor" that brought, I am free to confess, tears to my eyes, and within the sound of my voice are doctors who believe they are as solidly placed in the affections of their respective followings as any human being can be —far more solidly placed than lawyers, ministers or even distant relatives, and they will cheerfully testify that I am not a purveyor of veracity.

You who shake hands with the

father, smile at the mother and take the children on your knee, I do not blame you for saying to yourself "he is a fool"—do I even hear "liar?" All the same, I know you will agree with me that often they are the first to go—go even in one full leap or bound—to a Christian Scientist. Do you remember the Indian medicine man, carried around in high honor, exempt from menial duties until he failed on some Indian who had a pretty good collection of scalps and Indian evidences of successful profiteering. Do you remember what happened to him when he failed in these high cases of dignity and pre-eminence? Well, he failed too—failed to have any systole or diastole. I am not a pessimist and I wish to hastily add that it is not really you, nor your personality that fails. In fact, it is to your credit you make them momentarily forget their antagonism. It is your professional side they hate.

You know that among many scientists the view is pretty well established that the sexes, at heart, are natural enemies. To look at two lovers you would never gather this; it is only when you see what are the popular comic supplements in the newspapers that you realize it might be so. I am no judge of this antagonism, but I can see it in medicine. Our profession stands for one of the frailties, one of the failures of mankind. People like to look at healthy specimens of vegetables, fruits, flowers and cattle, as well as human beings. What would happen if the Ladies' Home Journal put a picture of a tubercular girl on the cover? I'll warrant the newsstand sale would be cut one-half. Everybody wants to be young and healthy. They can't all be young, but they wonder why they can't be healthy. We stand to them as an insignia that they cannot be, do what they may, so they hate what we stand for. They know we had nothing to do with it, but still they can't help the regrets.

In every man is a little bit of God. This little bit cries out against disease as an imposition, unnecessary.

> Oh thou, who man of baser earth didst make,
> And even with paradise devise the snake,
> For all the sins wherewith the face of man
> Is blackened—man's forgiveness give and take!

Now, as far as I can see, in going over a mass of material beginning back 3,000 years ago and coming back to tomorrow, this little bit of God in everybody has cherished the idea that certainly as God is not diseased, neither should he be, and so they listen to any newcomer or any new idea with the vain idea that he or she, or it, will touch some magic ferment, within this little bit of God that will expand it into wholesome power that shall pervade their whole body, cleansing it of all disease. That it has not come in any sense of the word in many centuries does not deter them from trying it again, any more than a man at Monte Carlo who has tried to win all evening stops and goes home when a friend steps up and counsels him not to throw in the diamond stick pin his wife gave him last Christmas. No, he tries again, after snapping off the counselling friend, whom he regards as an enemy and a kill-joy. To me that is where the physician stands when he sees a man trying out one of the many cults—he is the counselling friend, and the doctor gets just what he got—a short curt reply and look of

enmity. And if the gambler goes out and shoots himself, it is passed as one of those things that happen. Just as no one cares when someone does under the misdirection of a healer of some irregular kind. For a moment a look of horror—then a sigh—then "oh, well," and business goes on as usual.

I have tried, imperfectly, to show the first reason why people go to these healers. I shall now take up a second phase. Somewhere Galsworthy said in one of his books, the sense of the following:

"Life is a series of conquests and defeats, and if by any chance you are not having both of these you are already dead, and it were better you were buried." The gist of this is that the whole philosophy of life centers around this one truth, learned early by some, late by others, by the remainder never at all, namely that it is not possible, be what you are, possess what you will, do what you can, for you to be altogether happy in this world for any great length of time. No, you cannot do it. It is so fixed that you cannot. Now this leads us quickly to another and very peculiar finding, at times almost humorous, at times almost pathetic, and that is that no individual, no people, no nation, no civilization is ever content to subscribe to any one thing or profession or system, be it ever so near humanly perfect, continuously for any great length of time without getting restless and making an effort to throw it off. If you doubt this, I ask you to read the history of the world in any single aspect.

It may be the means by which we progress; I do not know—but I do know it has caused the world many tears and much suffering merely because what was good and what was evil in the thing they overthrew went down to disaster together. I do not know how you view the authenticity of the story of Adam and Eve; be that as it may, you must admit that life was going very smoothly for them. They couldn't stand it; couldn't stand being without lawyers, doctors, et al. So they ate an apple. Figuratively it brought on appendicitis. From that day to this there have been healers.

The general view of Heaven is that of a peaceful dreamy happiness. There will have to be, to me, a great transformation in us to prevent some one of us—or perhaps I, personally, should say them, instead of us—from going around up there with some kind of fruit, perhaps a bitter grapefruit—although any will do—and starting, if it is possible, the same kind of a revolution that secured for Michael and his angels their dismissal from the place. Some learned person has said Heaven will simply be like Earth, with the exception that we will have good health and understand each other. This is asking all you can of Paradise. But, here on earth, down through the ages, someone, either for mischief or ambition or power, or because they said they wanted to reform something, have crept into the places of abode of every good, honest, well-meaning activity and in the name of wonderful discoveries or supernatural powers, or unusual charms, or senses of healing, upset its tranquility and interfered with the very progress they so loudly acclaim.

We thought we had peace; even had a Tribunal at the Hague. Along came the World's worst war. A political party does well through

trying years—out it goes; another comes in, tries its best—out it goes. In the political sky today looms Henry Ford. He seems to offer a new remedy, why not try him? That he may work disaster does not occur. In what he has done, he has done exceedingly well, maybe because he is so successful God has given him some secret talisman. I mention all this to prove that this same restlessness is what brings into being these healing cults. What is it that we have swept away plagues! What is it that we have cleaned out countries and made them fit to live in! What matters that we have lengthened the span of life! Or that by operations by thousands we have made untold numbers able to go on in their daily work! We have been too near good! We've been too humane! Too self-sacrificing! Too meek! Too careless of ourselves! So, like Eden and the Hague and other good things, we are ever fit targets for the arrows of those who are ever restless to see something happen and to see a change for better or for worse. What does it matter? The bad ever flourishes on the good, mistletoe on the tree, barnacle on the vessel. Chiropractors, Osteopaths, Christian Scientists, are ever restless advisors bidding the people change. They say "change to us after they fail, come to us as a grateful relief from drugs and operations." It is tempting to the sufferer. It is alluring to those restless beings numbering so many who are not sick at all, but think they are, to be worked over and rubbed and carressed about! But neither these healing revolutionists nor the ones they led about could exist at all if it were not for the comforting thought that, come what may, or do what they will, just around the corner is the great, patient, easily forgiving medical profession that will save people ere they die.

I have gone over the history of healing for several centuries, and I want to say here and now, with all the force I possess, that I am surprised we are where we are. If you are perplexed at the inroads quacks and charlatans make, at the blatant effrontery of mental healers, at the cool self-satisfaction of men who claim to heal by wonderful manipulations, at the crowning success of nostrums, I bid you look back over the history of medicine, not three hundred years, and you will take off your hats and get down on your prayer rugs in honor of the hardy souls who have sent the Practice of Medicine up from the barbers boiling frog's hair with the dew from dead men's eyes added, to the Mayo Clinic, in all its glory, in Rochester. Furthermore, you would be surprised to learn how little of this mental healing is new, and you would also learn that in every age there were men of thinking habits who tried to put forth some ideas and were blocked and thwarted and maligned, just as the medical profession is today. Many years ago Armstrong said: "'Tis painful thinking corrodes our clay;" and Waldenstein: "Oh, if I could make a resolution and determine to be well;" and Churchhill said, in poetry, exactly the teaching of Mary Baker Eddy:

"The surest road to health, say what you will,
Is never to suppose we shall be ill;
Most of those evils we poor mortals know
From doctors and imagination flow."

"We must not forget that in early days the priest and the physicians

and the magician were combined in one person, and that primitive notions are difficult to slough off." I shall not burden you with the steps in the upward progress of healing, except to remind you many of them caused great tolls in tears and blood.

There was a fight to separate non-religious healing from religious healing. Even the great Catholic church has appeared in history as one of the greatest foes of non-religious healing and one of the Philips of Spain came near executing one of his best physicians because he dared to do a surgical operation. He was to appear before the Inquisition, and only barely escaped execution to go into exile, poverty and death. Later the Church changed its policy and became one of the originators of the modern hospital. It is a conspicuous thing to find that throughout the world's history each cult had a profound distrust of the others.

"As a general rule, one sharp distinction is noticed between the religious and non-religious healers, viz. the religious healer sees no limit to his healing power and affirms that cancer and "Brights Disease" are as easily cured, in theory at least, as neuralgia and insomnia; the non-religious healer, sometimes designated as a scientific healer, recognized there are some diseases which are more easily cured than others, and that of those others some are practically incurable by psycho-therapeutic methods." A great many claim that functional diseases can be cured by mental healing and manipulation, while the organic diseases cannot. But we, of course, know the difference between the two is, in many instances, hazy and the question is now asked "Is cancer an organic disease or is it some functional derangement of the epithelial tissue which causes it to grow indefinitely, until it invades some vital organ?" "A further question arises, due to a further study. Some of the latest investigators claim that most, if not all, persons have cancer at some time in life, but that antitoxin or some other remedy is supplied by the body itself and the growth is stopped and the tissue absorbed. The question then seems to be pertinent." If the body can produce the cure within itself, and this would be functional, why cannot mental means stimulate the body to produce it? Or does not emotional influence stimulate the body to produce it? What the cancer experts tell us of wide spread extension of the disease and its spontaneous cure, the tuberculosis experts affirm of tuberculosis, and certainly of the latter disease spontaneous cures are not uncommon. We also know that mental influence may, in fact does, have an indirect, but no less beneficial, influence on the cure of tuberculosis. From these examples one seems to be forced to one of two conclusions, either of which is contrary to generally accepted views; viz: first, that these are not organic diseases; or, second, if organic diseases, they are aided or cured by means of mental healing. In general, however, the distinction holds good; the so-called "functional" cases are amenable to cure by mental means, and the "organic" are much less so. The law for all mental healing is "MY BODY TENDS TO ADJUST ITSELF SO AS TO BE IN HARMONY WITH MY IDEAS CONCERNING IT."

This last section is pure quota-

tion, and in order to be fair is a presentation of the higher forms of mental healing, which even a doctor could easily and properly use. But, if you will be able to follow it, you will notice one thing, and that is it takes in everything and brings you out to understand both chiropractors and osteopaths, as well as psycho-neuropathy. It gives you to visualize that, after all, the spine and its rubbing, or the spine and its manipulation in chiropractic endeaver, is only another way of expressing Mesmer's idea of concentrating the attention on a fixed object. What could be better than the spine? Sure it is fixed and can be pretty roughly handled. Stop and think! Could any other part have been used? Hardly! Not the the head; not the leg; not the ribs! No, the spine is the "whole show" and I take off my hat to the first one who thought of it. Both Chiropractor and Osteopath, together with all other healers, are forever preaching on releasing pressure over a nerve and and allowing the nerve to be better nourished, and, as a result, secure better functional activity in an organ. Physiology scarcely enters into the matter at all. It is merely repeating what I said about the cancer or tuberculosis in another way. It ignores bacteriology, simply because it produces the thought that even if they were there, better action of released nerves would make for better antitoxin in the organ. With the manipulators, they constantly speak of the pressure being in the spine, but what they seem to believe in their hearts is that a mental strabismus exists in the mind of the patient, and if he can be made to believe it is in his spine, so much the better, and by manipulation, the mind centers on the vertebræ as a fixed object.

"As to psychasthesia, much has been lately said of psycho-analysis and re-education. Putting it in other words, we have certain systems of ideas; as a psychological fact of long standing, we know that other elements may be injected into the system so as to change it, or that one system may be destroyed and another system built up to take its place. You do a mental pneumothorax. This is the secret of cures of this nature—of mental troubles —the irritating factor, the thorn in the mind, is extracted." The sufferer from the neuralgia experiences no pain as he responds to the fire alarm and the toothache stops entirely as he undergoes the excitement or fear of entering the dentist's office. Serious lesions yield to profound emotion born of persuasion, confidence or excitement; either the gouty or rheumatic man, after hobbling for years, finds his legs if pursued by the wild bull; or the weak and feeble invalid will jump from his bed and carry out heavy articles from a burning house. The central idea is sufficient to command all the reserve energy and that idea which has suddenly and unexpectedly become central may remain so. What Chalmers calls "THE EXPULSIVE POWER OF NEW AFFECTION" in the cure of souls is the precise method of operation in the cure of some bodily ills.

"Trustful expectation in any one direction acts powerfully through the subconsciousness, because it absorbs the whole mind and thus competition with other ideas, whether consciously or subconsciously, is largely excluded. It is this which acts in mental healing under the

caption of faith, although some abnormal conditions may also arise to assist the suggestion. That this confident expectation of a cure is the most potent means of bringing it about, doing that which no medical treatment can accomplish, may be affirmed as the generalized result of experiences of the most varied kind, extending through a long series of ages. It is noticeable that any system of treatment, however absurd, that can be puffed into public notoriety for efficacy, any individual who, by accident or design, obtains a reputation for a special gift of healing, is certain to attract a multitude of sufferers, among whom will be many who are capable of being really benefited by a strong assurance of relief. Thus the practitioner with a great reputation has an advantage over his neighboring physician, not only on account of superior skill which he may have acquired, but because his reputation causes this confident expectation, so beneficial in itself. There have been fashions in cures as in other things." Just now manipulation of the spine is having the ascendency and the mode. At one time a certain relic, or healer, would attract and cure, and shortly afterwards it would be deserted and unefficacious, not because it had lost its power, but because it had lost its reputation. Two great divisions of mental healing prevail. The one in which disease is denied along with matter and sin, and the man heals by making patients believe he is a pure spirit; the other acknowledges the disease, but cures by faith in the power of divinity, persons, objects or suggestion. Christian Science is an example of the former. Faith in a person, relic, or a shrine is an example of the latter. These principles, however, include all forms.

Goldsmith said: "There is nothing so absurd or ridiculous that has not at some time been said by a philosopher." Fontenelle says "he would undertake to persuade the whole republic of readers to believe that the sun was neither the cause of light or heat, if he could only get six philosophers on his side."

The history of medicine consists, according to investigators, of three periods: One almost prehistoric; the second, in the 15th and 16th centuries, almost stationary; the third, from the 17th to the 20th centuries, which makes, as Cutten says, medicine one of the youngest of the sciences and one of the oldest of the arts, and in the past centuries it could be said the cruder the art, the more powerful the mental influence. And it has seemed that the mental has often stood in the road of the therapeutic. Following Cutten again let us take up the earlier civilizations. The Chinese of today, in the inland cities, are characteristic of the early era, since their healing has changed very little. Medicines are made from asses' sinews, fowls' blood, bears' gall, shavings of a rhinocerus horn, moss grown on a coffin, and the dung of dogs, fowl, rabbits, pigs, pigeons and bats; cockroach tea, bearpaw soup, toads' eyebrows and earthworms rolled in honey are common doses. The excrement of the mosquito is considered as efficacious as it is scarce.

In Egypt the body was divided into thirty-six parts, each presided over by a demon. In passing, and of interests to the specialists, it might be added that each Egyptian physician presided over one part and refused to infringe on the do-

main of his brother physician. All the other civilizations patterned after the Egyptians, except in early Greece Aesculapius, the son of Apollo was worshipped as a Diety, as were all physicians. After attending the legislature, I believe somewhere in between that time and this we have fallen. Aesculapius employed the trumpet for Sciatica. The continued vibrations made the nerves palpitate and the pain vanished. If this was like cornet playing, as we have heard it, it probably acted like the tooth stopped aching on the approach to the dentist. Democritus affirmed that disease was cured by the flute—but added that it must be properly played.

Next came Christianity. This brought the faith and mental chaos of the past to a focus. Its influence has been twofold. It first held therapeutics back immeasurably for years, only later to cause men and women to sacrifice time, money and even life itself, for the care of the sick according to the example and precepts of Jesus Christ. Christianity made demons the figures of disease. Origen said (in 254), "It is demons which produce famine, unfruitfulness, corruptions of air, pestilence; they hover concealed in the clouds in the lower atmospheric ere and are attracted by the incense and blood which the heathen offer as Gods."

Monks were prohibited the practice of surgery in 1248, and by subsequent councils, and all dissections considered sacrilegious. Surgery was considered dishonorable until the 16th century. What we see in connection with dissection and surgery was repeated at a later date with inoculation, vaccination and anaesthetics. In 1486-1535 physicians stood very high (sic) Agrippa said with pleasant irony that "physic was a certain art of manslaughter," and that "well nearly always there is more danger in the physician and in the medicine than in the sickness itself." He also gave the following picture of a fashionable doctor of the time: "Clad in brave apparel, having rings on his fingers glimmering with precious stones and which hast gotten fame and credence for having been in far countries, or having an obstinate manner of vaunting with stiff lies, that he hath great remedies, and for having continually in his mouth many words half Greek and barbarous." But this will prove to be true, that Physicians must commonly be naught. They have one common honor with hangmen, that is to say, "to KILL MEN and be recompensed therefor." So you see criticism of our profession is one of the oldest of indoor sports and pastimes, dating back much farther than golf.

Next we come to Relics and Shrines. These came largely through the Church and had often in connection, pools of water, lakes or rivers in which the patient bathed. As the belief was that disease was a matter of demons, so articles from holy places or people were used to counteract them. Of course the other religions had these relics and shrines the same as the Christian. About this period, power against different diseases was given to different saints, as for instance: St. Agatha against sore breast; St. Blaise against quinsy; St. Mark against sudden death; St. Valentine against epilepsy; St. Hyacinth against sterility—the list runs over forty. And to you who believe that

group medicine units are new I cheerfully commend this. The power of relics seems to depend on the veneration due to the memory of the good deed of the departed one.

Next we have the Healers. These were of two kinds, religious and non-religious, but, by far, the former were more numerous. They flourished by casting out demons, and really let their personality take the place of the relic or shrine. Afterwards Talismans. Talismans and amulets were worn on the person. A charm could be a look or a jesture. In the case of talismans the idea originated that, as they probably came from other planets where there might be no disease, they warded it off. On the other hand, names were used—Nettle Tea for nettle rash, poppy heads to relieve diseases of the head, and Mandrake, on account of resembling the human form, for barrenness.

If I were to go into the various kinds of amulets and how they were to be prepared against various diseases, you would wonder where civilization was at the time. About this time two celebrated charms loomed up for two diseases. First, colic: "This disorder will be cured by the person drinking the water in which he has washed his feet." And for headache: "Moss grown from a human skull, if dried, powdered and taken as snuff, will cure headache." Then there was the "King's touch." To be touched by the King was especially good against scrofula and epilepsy. To the inquiring, it is quite proper to say this has nothing to do with the "Royal Flush" of today.

Next we move up to Mesmer and Mesmerism, or Hypnotism. This finds us approaching modern methods as the method smacked of scientific endeavor. Mesmer did such a rushing business that at one time he gathered thirty around a trough and performed on them at one time. "But be that as it may, hypnotism has its therapeutic and psychological value and is duly credited by science today."

Healers of the 19th century. Man is a dupeable animal. Quacks in medicine; Quacks in religion; Quacks in politics know this and act upon that knowledge. There is scarcely anyone who may not, like a trout, be taken by tickling.

John Wesley—the great preacher and founder of Methodism—at first included the casting out of demons among his powers. The Holy Ghost and Us Movement was in 1863. The Mormons included healing; Mrs. Elizabeth Mix, a negro woman living in Connectitcut, achieved great fame.

Frances Schatter appeared up to 1909. Phineas Quimby was born in 1802; died in 1866. He was the man who actually put the Christian Science idea into Mrs. Eddy's head, although she later repudiated him.

Warren Evans wrote a book "The Mental Cure" six years before Mrs. Eddy. Mrs. Eddy was born in 1821-1910. She was a neurotic and precocious child; at the age of 22 she married Glover; he died six months later. She had one child. She next married a travelling dentist, and later secured a divorce. She studied under Quimby. Her theory is a form of subjective idealisms. Very, very old; the sole principles, the all-comprehensiveness of mind and the non-existence of matter. She advises "mentally contradict every complaint of the body." As Cutten

says: "Practice and Theory are two different things. Listen further, it would be foolish to venture beyond our present understanding, foolish to stop eating until we gain more goodness and a cleaner understanding of living God." Again, Until the advancing age admits the efficacy and the supremacy of the mind, it is better to leave the adjustments of broken bones and dislocations to the fingers of the surgeon, while you confine yourself chiefly to mental reconstructions and the prevention of inflammation and protracted confinement.

John Alexander Dowie came into prominence in a similar manner. Finally we have the Emanual Movement in Boston.

Next we have Osteopathic Healers, whose main "stock in trade" is rubbing, particularly of the back. I will say for them, that while they are still carrying among them many who have not the will to be scientific, they are steadily improving, enlarging their course and will some day have a definite scientific place.

Then, Chiropractors, who make spinal adjustments and relieve pressure and, incidentally, impress their patients mentally. First, with anything but modest newspaper advertisements. Second, with a recital of what they can and are doing so wonderfully different from anybody else. It is difficult to define and next to impossible to analyze the difference between them and Osteopaths, as concerns the regular practitioner, but there is a wide difference. In some manner, quite indefinable, the better class of Osteopaths seem, at times, almost like one of us, although he may never have touched a scalpel or known a drug. The Chiropractor makes one think of an alien. Something apart, beyond, unthinkable.

Then Albert Abrams, A. M. M. D. As far as I can see, the Electroonic Reactions of Abrams are either some revolutionary thinks like "wireless" that reduce all life and its diseases to what is at once a matter of such simplicity as to be amazing, or else, for very effrontery, it has many of the practices of the middle ages, with all their absurdities, completely outclassed. To be able to tell syphilis, tuberculosis, or whether a man is a Methodist or a Jew by consulting some of his dried blood and seeing what its vibratory rate is as compared to his instrument, the oscillaclast is at once equal to anything I can find in all history. Furthermore, knowing the vibratory rate of digitalis, and that of a failing heart, he can apply the same vibratory appliance as digitalis would have over the heart and get the result. At one full swoop this does away with the drug houses. The oscillaclast is a wonderful instrument. It is sold at 250 and five dollars rental, but like Bluebeard's Room you have to agree not to look in the box, which is hermetically sealed.

The fortunate fact now comes that 100 lessees of this instrument are on the black list of the A. M. A. as the worst kind of quacks and in the last year Osteopaths have leased almost three to physicians' one. Upton Sinclair, who has tried about everything since writing "The Jungle" to get into prominence again, has been highly indignant that the A. M. A. has so misjudged a great leader. Sinclair has about repudiated everything he ever did in a healing way, and it is likely this will happen to Abrams. Fi-

nally we have Coue. A sort of "be good dear child and let who will be clever." "Do noble things, not dream them, all day long." It is as if Mesmer returned. As if your sub-conscious self, like Dr. Jekyl, got up and waved its hand before your will power, Mr. Hyde, and said, "Look here, old Hyde, every day in every way I grow better and better, just because I got you hypnotized." Just one more way of getting the mind centered on something and differing in no way from much that has gone before.

In a hurried way I have covered all the different phases of this so-called art of Faith Healing. In a way, nothing in it is new, except that like a great many other things that have been placed in some sort of order and the followers are able to call things by what they are pleased to say are scientific names, so that we have Freudian Theories, auto-suggestion, sub-conscious mind and Psychoanalysis. Side by side with these have been numerous religious cults, who have had many different ways of getting to heaven, in fact in the great race I am not sure which has had more nondescript competitors—the clergymen or us.

The definite has always been besieged by the restless indefinite, and that something could live, something must die. After you run all through these cures you see real medicine is no more besieged today by restless antagonists than it ever was, and to be a real doctor has been always, in all ages, to be a real fighter. It is the doctors who are weak, and in their hearts half sympathizing with these healers of the easier way, that hold us back.

At Charleston the other day I heard the Medical Profession assailed. We were called "self-seeking." It was said that we advertised indirectly, if not openly; that we missed our guess more often than we hit it; that we hated each other, with our little groups, as we hate these cults; that we were not as altruistic as we would have people believe; that we were a closed aggregation that could not welcome the fresh and the new; that a poor boy could not take up our calling; that we were so narrow that we could not see the good in others, just because we did not understand; that we were very often followed by others of other faiths who cured quickly where we had failed for years. At first I felt like striking back. Next came the fact that, while these things were being said that day, they had been said also, not only years, but centuries back by men of the same calibre who were saying them then. These men were saying them in whom burned the desire to be healers without taking the long, tedious course of acquiring what there is to be acquired, and I knew if medicine was as right as I believe it is, it would go serenely through as it has always done. If it isn't right, let it fall. So much the better.

Consider, will you, that it is a desire on the part of everybody to heal. Your next door neighbor, who may be, if you live out in the fine residential district, a bootlegger or a plumber, has a desire to heal. A glance at a medical school prospectus acquaints him with the fact that he can't possibly do it, so he goes into "Chiropractic" or any of the other systems which in the long run can be classed as short cuts. Over the back fence, in the

street cars, at the movies, no conversation goes through very long until someone tells someone else what to do for a backache, a headache, or a cold or falling hair. Most all men I have ever met have at some time expressed the feeling that they would have liked to study medicine and "almost" started. Have you ever noticed the look on some people's faces when you were writing a prescription, as if "Isn't that just the easiest way to make two dollars you ever heard of?" If by chance, they still have the idea, and go out to pick up a magazine and read where you can get a "healing art" education, no wonder is it, some go ahead. There was, there is, there always will be a fascinating pull in everybody to administer relief in a healing way. When they go ahead and pursue it as a vocation, to some it gives license, to others satisfaction of an ego in exploiting itself with pictures in the papers with hair brushed back and an Edwin Booth-John Barrymore seriousness on its face, but to the majority it is a prize way to make money and be picked out as a personality.

To arrive at a conclusion I am going to ask you to go back with me and make this observation, that from the very first amulet or dose of dew from dead man's eyes, down to Coue, or the Chiropractor, there is always the element of "something just around the corner" in them and you are always requested to place yourself in a position so that you will see it when it comes. Even if you are cured immediately by the mental power, the explanation by which you got it still, in part at least, stays around the corner. In algebra you called this thing that remained masked and in disguise "X." I have not seen one of these cures, or examined it, without coming upon "X" sooner or later, and it is their strength—this so-called "X." For instance, Mary Baker Eddy said, "It would be foolish to stop eating until we gain more goodness and a clearer comprehension of God." Again, until the advancing age admits the efficacy and the supremacy of mind, it is better to leave the adjustment of broken bones and dislocations to the fingers of surgeons." The word "until" and "X" are the same. The Chiropractor says until you get your flow of blood through your nerves in a healthy stream, and relieve the pressure of this bone, or that ligament, from them, you cannot have your organs in harmony with your mind.

Physicians and surgeons confront "X" too, but they call it their weakness and not their strength. They can see why we go back to being afraid of "X" or the unknown, just as a negro from the South can come North, change his environment and become a noted banker or business man, and yet always be in fear and trembling when in a quiet dignified church service for fear he will break out in its midst ranting and yelling and throwing himself about on the floor, as he did in his "old camp meetings."

We can't have civilization believing in charms, amulets, healers and mental healers, for thousands of years, and then in two hundred years purge all out of them. All of us will revert part of the time and we might as well admit it. We all have pet fears and superstitions; a whole lot of us have them pretty strongly developed with respect to

medicine and healing, and to my mind it will take a long, long period to eradicate them. I should hate to give the statistics on how many homes right here and now have a bottle of some patent medicine in their cupboards and believe what they see on the labels as well and as implicitly as their catechism. Nor would I care to give how many doctors enjoy dividends from this believing the labels on the bottles of patent medicines.

So we come out at last to a formula, and that is: There are two equations, one is X, Y, and Z. That X is a promised word "until," and Y is credulity and belief in unseen powers and that Z is a real mental power, sober, tangible and yet complex as the Islands of Langerhans, and which resides in the mind as does the secretions of any other organ, save that it is impressed with the image on its cells of a vital force, that first set all its kind a going. And the second equation is A, B and C. A is a study of the structure of every organ of the body along scientific lines laid down in the study of any structure. B is its structure as affected by definite outside factors—wear, tear, bacteria, climate, occupation, sensations, narcotics, poisons. C is an orderly attempt at repairing the machine of the body after a comprehensive knowledge of what A and B are. Mental healers are all for X Y and operate by claiming they have some rare powers at making Z perform miracles. To them Z is of such vital quality that in the crudest possible ways they can so increase its coefficiency that they can insist on it repairing B without anything else save telling it to do its own work better in every way, day by day. In other words, they step in like little starlight in the spiritual meeting and make the connection.

It seems absurd to me that this secretion of the mind Z can't go ahead and repair B, which you remember is body structure affected by outside influence, without having itself reminded of X or Y. What kind of childish, primitive, embryonic structure is Z if it has to say over and over again to itself, like a drunken man repeatedly signing the pledge to reform, every day in every way I will be better and better, or how can it wake up one day as it flows out from its secretory cells, and say these blood vessels and bones and nerves I am flowing through are non-existant, in fact they are not there, and if I had the necessary courage I could step right out of this hot fluid blood and rent this cranium to some other tenant. Why is it I haven't the necessary courage? If I would just elect to do it, I could decide I wouldn't need that stomach down there and stop eating and to get from one place to another. I could dispense with those bones and need not care if they were broken, and if the work is sent up that the pancreas I am operating is 50% short on Islands of Langerhans I could get along as well without any, or elect to make over a new one, just as I please. If I can sit here and elect to make a new pancreas for myself, I can elect to make all the other organs. If I can do that pretty well, in time I can do away with the uterus and work as nice a revolution as was ever heard of, by doing away with propagation. If I do away with propagation I can do away with sex, then with children, then with schools and with a lot of useless na-

tions in the world. And if I can do without propagation I can eventually do without adult bodies. This will bring it out that all there will be to me will be a lot of invisible secretions "Z" floating around in the air like wireless vibrations, bodiless and fleshless, which will make it so that only the Gods will know where we are with their radios.

The writer knows you are laughing at all this, and he knows it sounds like dribble. He doubts if it is. And as he goes over all of it he finds most of it can be analyzed down to such a point. For "X" and "Y" are all there is to mental healing, which is to say "X" is the unknown and the credulity and fear is "Y." Y in Christian Science being merely the fear of your being out of harmony with God, and in the Chiropractor fear there is too much pressure on one of your nerves. It operates the same. "A" is histology, chemistry, anatomy and bacteriology. B is pathology. C is an orderly attempt to right B, as you would repair an automobile, a watch, reconstruct a tariff bill, or amend a constitution.

What is the lesson of this paper? It is this: A, B and C have ignored "Z" in the other formula. "Z" if you will recall, was the so-called "vital spark" in the brain—the mentality. Call is personality, subconscious self, or what you will—even a detached part of God. Anyway, it is the brain and just now, as far as we know, ceases to operate when the brain dies, whether in Paresis, cranial pressure or final death. But after all it is our chief claim and proof to immortality and all these amulets, charms, healers and cure-alls are only proof of the fact that the mind believes it has a power which is only using this body temporarily. But there has never been any substantial proof yet, to my mind, that it can use this body just as it sees fit, and not have to pay the penalty if it violates the physical laws of that body. In other words, a leaking heart is a leaking pump and the mind of a Confucius cannot send down word to it to violate all the laws of hydraulics just because it wills it so. We doctors have come to overlook "Z" or the power of the mind.

It is true we tell operative patients to "buckle up" and encourage neurasthenics casually, but we do not have a fixed purpose, nor do we do it with any but a half enthusiasm.

Here and there I have seen men who combined both the features of a physician and a man who also understood the mind's needs—but it is seldom. I do not care to be personal, but Dr. Reed comes to my mind. The older Cracraft and L. D. Wilson. To most of us, even those of us who still stand high in the Church, there is a deadness about our appeal to the mind. Seeing so much suffering and disease and doing so much in a charitable way, we come to believe the world rather nothing but a material waste and of course it tells on us, although I will say candidly without vanity, we are the best men in the world for taking things philosophically as they come. We need a postgraduate course, all of us, in faith—not especially religious faith, but faith in immortality. One guess is good as another even if you are in a fair way to be an agnostic. Why not guess we do live after death and that "Z" will live again in the body where the liver won't get hyper-

trophied and the appendix will be entirely gone. It is as good as the other way and a lot more cheerful. My friends, we do a lot of cheerful good work and a lot of charitable work—(something our mental healing friends are not, as yet, very keen on)—if there is another world, with all your shortcomings, it is very probable you will be very well thought of. If so, hold a little more belief in the mental here and its power to do good. It isn't necessary to believe in stained glass windows or lillies or hymn books so hard as the others. All the evidence seems to show that Jesus Christ was as red-blooded a man as you are and Moses as stern an old cave man as Dr. Ackerman. Job as big a man as Schwinn and David as suave a worker as Dr. Hupp; while Saul could show up in a fight as well as William Fulton, and Paul as resourceful as Covert and just as full of life. And for those who fall, like myself, there was Peter, who came up after being under three times and began all over again. I can't believe any of these were different from you and I and they were just as manly, had just as much endocrine secretions and were just as capable of a good fight in any direction as you or I.

There is only one way to eradicate all these fantastic mental cults and mesmeric forms of healing, and that is to include in our methods of healing a large share of belief in the mind's power over the body. There is no use talking, the medical fraternity has too much of Thomas in their make-up. For them it is non-existent if you can't put your finger into the very wound. It is either a drug or a knife or a powerful ray of some kind, or a climate, else it won't do good. They forget that the X-Ray itself may be allied to the energy that traverses the nerve. In a way you cannot blame the doctors, because they see so many nervous disorders that are dependent on a chemical or a germ or a tumor. Take a goitre in its incipiency—it is only a question of a few additional drops of iodine and all the nervousness is gone. Give heavy doses of arsenic and the unsteady gait may go in the Grand Mal, or remove a tumor and a woman is herself again.

But, be these things as they may, they do not cover the thousands of cases that need only a new mental housecleaning or an open channel for the subconscious, and then all the other organs, normal in the extreme, will function again. Mental healing takes more time and extreme patience than doctors can give, as a rule, but that cannot be helped. Doctors must have FAITH to give the idea of it to others. No salesman can very long continue the selling of an article in which he has no confidence. So then, a doctor must have some feeling of the mental benefits to be acquired by some concentration of the mind, as well as future happiness, after you have concentrated. In other words, he must believe: firstly, that there is something to be obtained from living here, despite its hardships; and secondly: that from the living here and mastering our inherent desire to grow gloomy, we will ultimately get into a life somewhere outside of this which shall be commensurate, happy, practical, and, if you will, red-blooded. Doctors think, for the most part, that this is "wishy-washy;" they believe, down deep in their hearts, that religion is an

attempted move to drown out fear of death and the future. Why make it religious? It isn't necessary. A doctor knows that he might find out tomorrow that death is merely a new obstetrical affair. That, as the heart quits beating here it was only because it was not needed any more, after leaving the womb of this world's affairs, because the personality may have needed no oxygen or haemaglobin where it was going. I say, if he found out all this tomorrow, still it would be no more wonderful than that out of a couple of little cells a baby should be born here, as he now sees it every day. Why call it impossible, or religious, or poetic to live again? It may be quite ordinary, quite practical, quite everyday! Why clothe it with golden streets, harps and impossible peace by slow-moving rivers?

So, if we can look for something practical there, it is quite easy to get people to take new courage here. For most mental strabismus comes with a feeling of no hope for the future. So, let us get people to brighten up here with a direct attempt at mental concentration, because we know, and surely every mental quack knows, our hope for the future is our main and only "stock in trade," when the mind is ill. And yet, when we see a patient hopelessly tangled up in a mental illness and he says, "Why get better—there is no use," we shunt him off to a nerve specialist or let him drift. We could just as easily have given him all the concentration, all the liberation of the sub-conscious, all the faith he needs. But we consider it beneath our notice. We fail there. It is really, just now, above our notice. We had better notice them and notice them honestly, squarely and directly, as we do other illnesses. It is much better than trusting to a Legislature to curb charlatans or those who would not understand the body in its real material diseases, of which we know there are too many.

"He profits most who serves best." We know best how to serve, because we trained a long while to do it. Then, why don't we?—Mind as well as body?

ANNOUNCEMENTS AND COMMUNICATIONS

Sept. 3, 1923.

Editor,
West Virginia Medical Journal,
Huntington, West Virginia.

Dear Sir:

During the meeting of the Southern Medical Association it is hoped that the Alumni of each of the Medical Schools represented will meet together at dinner. The evening of Wednesday, November 14th, has been set apart for that purpose and dining-rooms have been already engaged.

The Committee desires to know approximately the number of diners to be expected at each of these reunions. Those who expect to attend should therefore notify the undersigned by the end of October.

I am

Faithfully yours,

TOM A. WILLIAMS,
1746 "K" Street
The Parkwood,
Washington, D. C.

Chairman Alumni Dinners, Southern Medical Association.

Freeport, Illinois,
August 22, 1923.

Dr. James R. Bloss, Editor,
West Virginia Medical Journal,
Huntington, W. Virginia.

Dear Dr. Bloss:

The physicians of the middle west would deeply appreciate the favor if you will kindly publish in the West Virginia Medical Journal the announcement of the coming annual assembly of this association, which is to be held at Des Moines, Iowa, October 29th, 30th, 31st and November 1st.

Will you kindly state that the physicians of your state, (who are in good standing in their state's society) are most cordially invited to attend and take part in the program.

This association is a purely postgraduate organization. The entire time of the annual assembly is taken up with scientific study. We are enclosing a list of eminent members of the profession who have kindly accepted to take part on the program. We would appreciate as much publicity as possible in your journal.

Again assuring you of our deep appreciation,

Very sincerely yours,
W. B. PECK.

Headquarters: Fort Des Moines Hotel.

"Tell the public!" That is what Dr. Mustard, health officer of Preston county, W. Va., wants to do. Recently the Preston county department of health announced that the children of the county were short on six-year molars; and the editor of the Preston County Journal dropped around to the health officer's to find out what a six-year molar was. This is how he tells the story:

When we asked the doctor about molars he plunged into a corner and emerged with a diagram of the teeth of a six year old child.

"The six-year molars," he said, "are the first permanent teeth a child gets. You, like most parents and some dentists probably think that 'first' applies only to the first milk teeth. This is incorrect.

"Look at this diagram. Start at the space between the middle teeth and count backward. The first five teeth are temporary; the sixth is the first of the permanent teeth; it is called the sixth-year molar because it comes at about six years of age. Note that that there four of these, one on either side of the lower jaw and two just above them in the upper jaw.

"Didn't know that tooth was permanent did you? Lots of people don't. Persons who don't know, think it is a temporary tooth and let it decay. But it isn't temporary! It doesn't take the place of any temporary tooth, nor does any other tooth ever take its place. When it goes it goes forever."

"Well," we asked, "won't it be stronger than the temporary teeth and last longer?"

"It may or it may not," answered the doctor. "It's a large tooth, but its upper surface has a lot of pockets which invite decay unless the tooth is kept clean and unless the child is properly fed."

"Properly fed?" we asked.

"Exactly," replied the doctor. "Children can't grow as they should unless they are properly fed. Their bones, including their teeth, will be chalky; and chalky teeth decay quickly. Moreover, six-year molars

come just when the temporary teeth are decaying. Rot in teeth spreads like rot in a barrel of apples; and the molars, particularly if they are chalky, stand no more chance in a mouth full of rotting teeth than a snowball in—July.

"Some of them are allowed to decay along with the temporary teeth and others are pulled by parents or by officious neighbors because 'they are only milk teeth'." Dr. Mustard was waxing indignant.

We were indignant too! "How can we help?" we asked. "The public ought to know about this; and we want to do our share."

"Use your paper," cried the doctor, enthusiastically. "Tell 'em once, tell 'em twice, tell 'em over and over again. Tell each mother to examine her child's mouth and count back to the sixth tooth. Tell 'em if it's decayed to hurry that child to the dentist. Tell 'em that once gone a six-year molar is gone forever; and that these molars are all as important to the mouth as a key stone is to an arch. Tell 'em not to allow six-year molars to be pulled even if they are decayed, unless the dentist insists—and to be mighty sure that he is a real dentist!"

So we're tellin' them — that is YOU!—U. S. P. H. Service.

In an attractive new dress, in a more compact and readable form, with its value enhanced by the dignity of print, the most recent number of "Venereal Disease Information," a monthly publication issued by the United States Public Health Service at Washington, has just come from the press.

This magazine, as the name indicates, is intended primarily for health officers, physicians, nurses and social workers engaged in venereal disease control activities. The present issue contains several special articles, noteworthy among which is one on general paresis. The bulk of the magazine, however, in conformity with the custom established in previous mimeographed issues, is composed of brief abstracts of articles dealing with venereal diseases which have appeared in current publications, both foreign and domestic. The contents is divided into six sections under the heads of special articles, research, diagnosis, treatment, clinical notes, and public health and administrative notes.

For some time past this information has been furnished State health departments, venereal disease clinicians, hospital libraries, medical society libraries, medical school libraries, medical journals, public health nurses' associations, training schools for nurses, social service agencies and other organizations in the form of mimeographed monthly abstracts. The wide use made of the information contained in these abstracts and their popularity so impressed the Public Health Service with the desirability of presenting the information in a more readable form that the new publication is the result.

The subscription price for this new periodical is 50c per year payable to the Superintendent of Documents, Government Printing Office, Washington, D. C. The number of subscriptions already received from members of the medical profession would indicate that the more permanent form in which this information is now appearing meets with the approval of the group for whom the publication is designed.

THE WEST VIRGINIA MEDICAL JOURNAL

JAS. R. BLOSS, M. D. - - - - - Editor

C. R. ENSLOW, M. D.
J. E. RADER, M. D. } - Assistant Editors
W. E. VEST

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All original articles for the journal must be made to it exclusively. Communciations and items of general interest to the profession are invited from all over the state. Notices of deaths, removals from the state, changes of location, etc., are requested.

Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

CONTRIBUTIONS TYPEWRITTEN

It is much more satisfactory to all concerned if authors will have their contributions typewritten before submitting them for publication. The expense is small to the author—the satisfaction is great for the editor and printer.

Contract with present printer specifies all articles, communications, etc., MUST BE TYPED.

ADVERTISEMENTS

Advertising forms will go to press not later than the tenth of each month.

All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the A. M. A.

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Should be made by check, draft, money order, express order or registered letter to Dr. Jas. R. Bloss, Chairman of Publication Committee, Huntington, W. Va.

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DR CORYDON R. ENSLOW

A Buckeye by birth, first saw the light of day December 28, 1853, at Wheelersburg, Ohio. He was the son of Revillo and Sophia Andre Enslow and while in his teens moved with his parents to Huntington, then only a straggling village. He was educated at the Medical College of Ohio (now the Medical Department of the University of Cincinnati) and graduated in 1877. His first location was at Bidwell, Ohio, but he soon moved to Wayne County, West Virginia, where he practiced for several years. In March, 1833, he located in Huntington where his residence was maintained until his death. The last few years of his life were full of suffering as he was a victim of bronchial asthma. Practice, under the circumstances was impossible, and when comfortable he devoted himself to study. During the past summer his general condition was better than for some time previous, but an asthmatic seizure in the early morning hours of September second was compli-

cated by a heart attack which resulted fatally at six A. M.

Dr. Enslow was married in 1880 to Miss Mary Lou Bloss of Ceredo, W. Va., who, with a son and daughter, survives him. Immediately after locating in Huntington for the practice of his profession, he became a factor not only in the medical profession, but in the material and civic development of the community. He served a term as mayor, and when the Chesapeake and Ohio Hospital Association was formed, he was appointed surgeon in charge at Huntington organized their hospital, the first in the city. During the administration of Governor McCorkle, he served on the State Board of Medical Examiners; for years he represented the Fourth District in the Council of the West Virginia State Medical Association; he was a past president of the Association of Surgeons of the Chesapeake and Ohio Railway and was at the time of his death Consulting Surgeons to the Railway Company. Since 1916 Dr. Enslow was Associate Editor of the West Virginia Medical Journal. In his later years of practice he specialized in surgery and consultation work.

If Dr. Enslow had an outstanding characteristic it was his humanity, for the "milk of human kindness" was ever present in his daily life. Day in and day out he administered to suffering humanity without thought of reward. He was a friend to the layman and the physician, and especially was he the friend to the young man in the medical profession. Without rancor and without jealousy he "pursued the even tenor of his way" and practiced towards his fellow physicians the Golden Rule laid down by the Great Physician. He was possessed of a wonderful fund of general knowledge outside the field of his chosen profession, and his common sense and reasoning ability were prominent characteristics. He was a clear thinker and an incisive writer, his book reviews especially being classics.

"His life was gentle, and the elements
So mixed in him that Nature might stand up
And say to all the world, 'This was a man'!"
—W. E. V.

WHAT THE U. S. PUBLIC HEALTH SERVICE IS DOING FOR YOU IF YOU ARE YOUNG

About 12 years ago the Public Health Service, finding that blindness among the new born was becoming unduly prevalent, issued a pamphlet bringing this condition to the attention of all physicians and especially of all health officers and urging them to make sure that the eyes of all new-born babies were cleansed with a certain simple chemical solution which had already been made imperative by the laws of 28 States. Since then the Public Health Service, in common with the State and local health authorities, has insistently urged every mother to lose no time in asking the doctor if he has attended to this matter and has thereby removed the great danger that menaces the sight of her new-born child. Such action is now required by law in every State in the Union; the sight of hundreds of children has been preserved. One of them might have been YOU.

The Nation and the States likewise cooperated in forwarding birth registration. In 1915 the Census Bureau established the "birth regis-

tration area" for 10 States, the only ones in the United States that then kept birth records that were sufficiently reliable to be of real value. Since then the number of States in the birth registration area has grown to 30, containing 72.2 per cent of the total population of the United States.

Registration is extremely important to YOU. The Public Health Service has continually urged on mothers that they each ask the doctor if he has registered the birth of her child, as he is required to do by the laws of most States. But as birth registration is so modern it would be well for you to lose no time in finding out whether such a law was operating in your State when you were born and, if it was not, to take steps to have your birth registered. Such action puts on record your name, and the names of your parents and the date of your birth. It thus shows when you may start to school, go to work, vote, get married without asking anybody's permission, make a will, control an inheritance, etc. It is also of value to the United States because, taken with all other births, it shows how fast the population is reproducing itself and how fast its different elements are increasing or decreasing.

That you survived through the first year of your life, especially if you were a "bottle" baby, may very well have been due to the work of the health services, Federal and State, in continually preaching cleanliness, milk pasteurization, and other health protective measures. Chiefly by such work the death rate in the registration area of children under one year old has been reduced in the last 20 years from 162.2 (estimated) to 76 (1921) per thousand live births, that is by more than one half. The risk to bottle babies is estimated to be four times as great as it is for breast babies.

During the fiscal year ending July, 1922, the Service carried on child health work in ten States. In two selected counties in Florida, for instance, it investigated at the request of the Florida Board of Health and the Florida Federation of Women's Clubs the causes of sickness and deaths among children and outlined ways by which the State Board of Health might reduce them. It organized nutrition classes, a dental clinic which cared for 75 children a week, freed from hookworm all children found infected, vaccinated all whose parents would permit it (vaccination of school children is not compulsory in Florida); established a permanent child health center; and in three months saw to the correction of one-third of the remediable physical defects found in the children in two large schools and brought two-thirds of the underweight children in a third school up to normal. Later, nutrition work was done in nine other counties in the State.

More or less similar work was done during the year in Missouri, Utah, and Mississippi and at Bedford, Illinois, Hagerstown, Maryland, and Memphis, Tennessee. Lesser work was done in the District of Columbia, Virginia, and Maryland.

If you went to school in recent years or are still going you probably owe a very great debt to the health authorities, National and State. Following are some of the things that they do for you now and that they in some places began

to do for you many years ago.

1. Made physical examinations to determine whether you had any physical defects that could be remedied while you were still young but that if allowed to go too long untreated would handicap you for the rest of your life. Among such defects are (a) adenoids, which deform your face and clog your nose and make you a "mouth breather," with all the dangers that this entails; (b) defective eyesight, which hampers you at school—in playing baseball, if you are a boy, for you can't see the ball quickly; and in spoiling your looks, if you are a girl, and in scores of ways for both sexes in later life; (c) deafness, which prevents your understanding what the teacher says and causes you to be set down as disobedient and stupid; (d) decayed teeth, which prevents you from properly chewing and conseyuently from digesting your food, which in turn made you weak, sickly, "puny," and miserable.

All children suffering from these defects cannot be wholly restored to normal but nine-tenths of them can be; and the others can be helped. For example, in a Vermont school 16 children far behind their classes and thought to be dull, sickly and stupid were treated for such defects and all are now up with their classes, both mentally and physically, and some of them are among the leaders of the school.

2. At school too you were probably saved (though perhaps you never knew it) from many an illness by the vigilance of school nurse, who time and again sent home schoolmates of yours who were sickening with one or another sort of communicable diseases before they could pass it on to the others—among whom you were one.

3. At school too you were probably required to be vaccinated against smallpox, and perhaps to be inoculated against diphtheria and against typhoid. Smallpox would probably have been practically wiped out in the United States long ago had not the laws in some States evaded. For a time nothing happened; but usually after 3 or 4 years, during which the unvaccinated population increased, somebody sickening with smallpox (though perhaps not knowing it) came to town, perhaps with his family, and started an epidemic among the unvaccinated. That is what happened a year or two ago in Denver and Kansas City, where smallpox caused 1300 cases and 400 deaths—a very large proportion of the victims being young people.

Such things as those cited above are commonly done for you in most of the wealthy and closely populated States and in the great cities by the State or local health authorities; but in many of the poorer and more sparsely populated States this is usually not the case; and in not a few States of intermediate resources conditions vary. In parts of the rural and thinly settled regions in nearly all States such work is sharply limited by the number of doctors and nurses who can be induced to leave the cities for the meager financial rewards of the country.

It is to meet just such conditions that the trained personnel of the U. S. Public Health Service is engaged in discovering the most pressing child health problems and in finding the most practical ways of deal-

ing with them in view of the resources of each community.

A WARNING

The attention of the readers of this Journal is most earnestly directed to the article by Dr. Harry Hall, appearing in this issue. Those of us who have followed his reports of the meetings of the Ohio County Society, have become familiar with his clear and forceful manner of writing. One has no trouble in understanding just what he means. It seems to us that never has he written anything more incisively direct than this.

This paper certainly should make every medical man in the State of West Virginia stop and ponder. It is a very plain indictment of ourselves on a number of counts. If we are only honest we must admit them. Very clearly is set forth the reason for the various "ists," "isms," and "pathies." There is no question as to where the responsibility rests in his mind.

At times we have felt that so much has already been said along this line in the editorial pages of the Journal, that it has become tedious. Until we physicians do awake from our lethargy and arouse ourselves to our responsibilities along these lines, there is danger not only to our profession but to the welfare of the people as a whole.

Already one of the various cults is setting the stage and rehearsing the stars for the new play, "The Next Session of the Legislature." It is determined that at this presentation the readers of their lines shall be letter perfect and that it shall go across the footlights at Charleston with such power that it will "take" tremendously and instantly succeed.

What is the medical profession doing or going to do? Probably nothing until after the session begins. The time to start to work is now. Why it is that there seems to be such an utter inability for the medical profession to reach an unanimity of opinion upon a line of procedure is unexplainable. It should not be so. We hesitate again to prophesy disaster yet again we say BEWARE!

THE WEST VIRGINIA REVIEW

In the past few years patriotic citizens of this commonwealth have been made to feel chagrined when reading press notices sent out about West Virginia and the lawlessness of its citizenry. We who live here and know the facts were insulted by the untruths published of us.

Out of this came the organization of the West Virginia Publicity Commission with its facts about the State. Gradually there has evolved a feeling of pride in the achievements of The Little Mountain State and its sons and daughters past and present, which did not seem to exist before; at least collectively as "State pride" though one feels from personal sentiments that it did exist individually.

This has continued to grow until it has resulted in The West Virginia Review. The first issue of this publication has just reached us. If this is a sample of what we may expect in future issues, a feast is surely before us.

One can but have pride in the fact that such a magazine is published in West Virginia, about West Virginia, by West Virginians. It should be heartily supported by all citizens. A way to help the Review accomplish great good would be for each

physician to have it on his reception room table.

The editors are to be heartily congratulated upon their publication.

STATE AND GENERAL NEWS

THE LAW AND DISEASE PREVENTION

California Court Helps Define Reasonable Suspect

"A court decision important in the annals of health legislation" is the way the United Public Health Service at Washington characterizes the recent ruling of the District Court of Appeals, Second District, Division 1, of California.

Marie Clemente arrested and charged with conducting a disorderly house petitioned the court for a writ of habeas corpus setting forth that she was being illegally detained and restrained of her liberty by the chief of police of the city of Los Angeles acting under instructions from the health department of that city not to release her until she had submitted to an examination ordered to be made by the health department for the purpose of determining whether she was affected with a contagious or infectious disease.

The District Court of Appeals held, that information that a woman is not only conducting a house of ill-fame, but also personally participating in the unlawful acts carried on therein furnishes reasonable ground to believe that she is affected with an infectious disease, authorizing the health department to enforce quarantine measures against her. The woman was remanded to the custody of the chief of police.

As far back as 1919 the United States Public Health Service, in a bulletin prepared by direction of the Surgeon General, V. D. Bulletin No. 39, advocated a model city ordinance which provided that all persons reasonably suspected of having a social disease in the infectious stage be examined by the health officer or under his direction. Whom might be considered a reasonable suspect in such cases has been a point of controversy in many localities. The recent decision in California, says the Public Health Service, helps to clear up this much debated question.

Mrs. Susan Cook, president of the West Virginia State Nurses' Association, and Mrs. R. J. Bullard, Secretary, were in Huntington making arrangements for the seventeenth annual convention which was held there Sept. 27 and 28.

Dr. C. M. Hawes of Huntington recently spent several days in New York City.

Dr. Ben L. Hume, of Huntington, has been appointed Department Surgeon in the Army of Northern Virginia Sons of Confederate Veterans.

Dr. Mark Sutphin of Logan, was recently married to Mrs. Laura Miller Walters of Huntington, W. Va. Dr. Sutphin is surgeon at the Guyan Valley Hospital. Previously he was connected with the Kessler-Hatfield Hospital of Huntington for four years. During the war he served in the Medical Corps with the American Expeditionary Forces.

Drs. T. W. Moore and Wm. F. Beckner announce a change in the name of the Moore-Beckner Hospital to the Huntington Eye, Ear and Throat Hospital.

Dr. Chas. A. Pryor, who has been connected with the Chesapeake & Ohio Hospital in Huntington, has gone to New York to take special work in diseases of the eye, at the Hermann Knapp Memorial Eye Hospital. He will also go to Philadelphia to finish up a year's work in a course on diseases of the eye, ear, nose and throat at the Pennsylvania Polyclinic Hospital.

Dr. Jas. R. Bloss of Huntington has returned from Philadelphia where he attended the meeting of the American Association of Obstetrics, Gynecologists and Abdominal Surgeons.

Born to Dr. and Mrs. W. E. Neal, of Huntington, a son, Tuesday, September 25.

Dr. Hugh L. Judge of Wellsburg, age 69, died June 30th, following a long illness.

Dr. Wm. John Blake, of Benwood, age 39, died at the Ohio Valley General Hospital, Wheeling, June 25th.

Dr. Isaac H. Robbins, of Richwood, age 55, died from heart disease, June 14th.

Dr. C. R. Enslow, of Huntington, died Sept. 2 from acute dilatation of the heart.

Dr. Thos. Joseph McGuire of Parkersburg, was killed Sunday, Sept. 28th, by being thrown from his automobile. Dr. McGuire was 52 years of age. He was born and raised in Altoona, Pa., was graduated from the University of Maryland in the class of 1897. For the past 25 years he has been one of the leading physicians of Parkersburg, being a member of the staffs of both St. Joseph and the City Hospital. He was a member of the American Legion and the Knights of Columbus.

Dr. W. D. Row, of Carlin, Nev., formerly of Huntington, died June 19th. The body was brought to Huntington for burial. Dr. Row was well known in Huntington, having lived there for a number of years before going west. He practiced medicine in Huntington for a time and was later connected with hospitals at Parkersburg and Spencer, returning to Huntington before he moved to Nevada, about ten years ago. He was 62 years old. He is survived by the widow, a son, two brothers and a sister.

WASHINGTON MEETING OF THE SOUTHERN MEDICAL ASSOCIATION

The Southern Medical Association will hold its seventeenth annual meeting at Washington, D. C., Monday, Tuesday, Wednesday and Thursday, November 12-15, 1923. Dr. W. S. Leathers, Executive Officer, Mississippi State Board of Health, Jackson, Mississippi, is President .

This meeting will be made up of twenty sections and conjoint meetings—the programs of these meetings will cover every phase of scientific medicine and surgery. (See marked bulletin for names of sections and conjoint meetings.)

The President of the United States will receive informally the members of the Southern Medical Association and their wives, Thursday, November 15th, at 12:30 p. m. at the White House. Of special interest to the ladies will be the reception at the Washington Club on Tuesday afternoon where Mrs. Woodrow Wilson will be the guest of honor. The usual reception to the President of the Southern Medical Association will be held on Tuesday night at

the New National Museum, one of the most beautiful public buildings of Washington, a detachment of the Marine Band furnishing the music. Other special entertainments being received.

At the first general session on Monday night, in addition to the address of the President, Dr. Leathers, there will be an address by Dr. Geo. E. Vincent, President of the Rockefeller Foundation, New York, N. Y.; Oration on Public Health by Dr. W. S. Rankin, State Health Officer of North Carolina; Oration on Medicine by Dr. Stewart R. Roberts, Atlanta, Georgia; and Oration on Surgery by Dr. J. W. Barksdale, Jackson, Miss.

A joint dinner by the Section on Surgery and the Section on Radiology, as well as a number of section dinners, will be interesting features of Tuesday evening. The Alumni Reunions which promise to be an outstanding feature of this meeting will be held on Wednesday night and it is expected that there will be large groups present from all of the leading medical schools.

Physicians who golf are urged to bring their clubs. There will be a golf tournament at which the usual prizes will be offered. Play will be over the championship course of the Columbia Country Club.

The University of Virginia Hospital, Charlottesville, have already announced special clinics for Friday and Saturday following the meeting. While no definite announcement has been made yet, it is anticipated that Johns Hopkins and the University of Maryland will arrange clinic programs for Friday and Saturday following the Washington sessions.

Washington has many splendid hotels and every one is assured of comfortable accommodations this year. Special reduced rates have been granted by railroads on the certificate plan. Each member of the Southern Medical Association will receive a certificate without application for it. Any physician who is a member of his state and county medical society although not a member of the Southern Medical Association, who desires to attend this meeting, can have the benefit of these reduced rates by requesting a certificate from the Association office.

NEW AND NON-OFFICIAL REMEDIES

Protein Mixtures for Diagnosis.—Mixtures of two or more pollen, epidermal or food protein preparations. These mixtures are supplied in order that the number of skin tests to determine sensitiveness to proteins may be reduced. If sensitiveness to a given protein mixture is found, then tests are made with the individual proteins contained in the mixture. (See Pollen and Epidermal Extracts and Biologically Reactive Food Proteins, New and Nonofficial Remedies, 1923, p. 234.)

In addition to the articles enumerated in our letter of July 31st, the following articles have been accepted:

Lederle Antitoxin Laboratories—Thromboplastin—Lederle.

National Aniline & Chemical Co.—Enteric Coated Tablets Neutral Acriflavine—"National;" Ointment Neutral Acriflavine—"National" 1 per cent.

E. R. Squibb & Son—Solution of Hypophysis — Squibb. Arsphenamine—Squibb, 1 Gm. Arsphenamine—Squibb, 1.2 Gm.

Winthrop Chemical Co.—Luminal Tablets ½ Gr. (Winthrop Chemical Co.)

W. A. PUCKNER, Secy.

PROPAGANDA FOR REFORM

Collosol Calcium.—E. E. Prest (Brit. Med. J., Jan. 14, 1922) recommended a new "collosol" brand of so-called colloidal calcium for the treatment of tuberculosis. T. C. Graves (Lancet, Nov. 4, 1922) discussed "Colloidal Calcium in Malnutrition, Chronic Sepsis and Emotional Disturbances." The publications of Prest and Graves serve as uncritical endorsements of another addition to the Collosol preparations. The conclusions reached by Graves concerning the beneficial action in the treatment of "Emotional Disturbances" do not seem justified by the character of the evidence he presents. Such results as he reports are common experience without the use of medication. There is no basis, either in theory or in the evidence presented, for administering a calcium salt in colloidal form; if advisable, soluble compounds of calcium such as the lactate and chlorid may be administered hypodermically. Thanks to the timely report of the Council on Pharmacy and Chemistry, the Collosol preparations are not being pushed in the United States though they are being actively exploited in England. (Jour. A. M. A., Aug. 4, 1923, p. 409.)

C-O-M Not Accepted for N. N. R.—The Council on Pharmacy and Chemistry reports that "C-O-M" is the proprietary, noninforming name under which the H. D. Frees Co., Chicago, exploits a preparation which is claimed to be the solution of magnesium citrate of the U. S. Pharmacopoeia but to have the advantage over the official preparation in that it keeps indefinitely. The Council refused recognition to "C-O-M" because, 1, the application of a proprietary name to a pharmacopoeial article is irrational and a detriment to rational therapy; 2, as solution of magnesium of citrate is readily prepared fresh and of standard quality by pharmacists, the claim of stability is not a sufficient warrant for the use of a proprietary name for an official article; 3, the therapeutic claims for C-O-M are unwarranted, and 4, the advertising propaganda is likely to lead to the excessive and ill-advised use of the preparation by the public. (Jour. A. M. A., Aug. 11, 1923, p. 493.)

MEDICINE AND SURGERY

THE AVERAGE MAN BELIEVES

That all doctors write illegibly.

That prescriptions are written in Latin so patients won't be able to read them.

That there is a "cure" for everything.

That ice cream and pickles won't mix.

That drinking water at meals is unhealthful—or maybe it's before

meals.

That the number seven is lucky—or unlucky.

That good surgeons have to have long fingers.

That all "glands" have something to do with sex.—Hygeia.

IT ISN'T THE COST; IT'S THE UPKEEP

A New York jury recently awarded a woman $40,000 for the loss of a leg. The latest court decisions, as assembled by a legal journal, show the value of a woman completely assembled as:

Legs, @ $40,000	$ 80,000
Arms, @ $42,500	85,000
Hair	20,000
Nose	15,000
Eyes, @ $10,000	20,000
Broken heart	250,000
	$470,000

This teaches us that a first class wife should be given at least as much attention as a 1914 flivver.—Hygeia.

THE ELECTROCOAGULATION METHOD OF TREATING DISEASED TONSILS

Frank J. Novak, Jr., Chicago (Journal A. M. A., June 23, 1923), employed this method in 100 cases. Without exception, the patients had a stormy experience beginning a few hours after operation. Pain was uncontrollable save by liberal doses of morphin. There was extreme difficulty in swallowing, much greater than after tonsilectomy. The plate was extremely edematous, and speech was impossible. The intensity of this reaction persisted through the sixth day. Whatever logical basis electrocoagulation of diseased tonsils may have, from a theoretical standpoint, is far overshadowed by the unsatisfactory results in actual practice. Novak believes that the method is entirely inadequate, inaccurate and unsatisfactory, and cannot in any manner compete with the accepted present-day methods of tonsillectomy.

HIGH GRADE CHOKED DISKS IN EPIDEMIC ENCEPHALITIS

William G. Spiller, Philadelphia (Journal A. M. A., June 23, 1923), reviews the literature to determine what has been published concerning choked disks in epidemic encephalitis, and reports two more cases which came under his observation.

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PYELILTIS IN CHILDREN

Read at Fifty-sixth Annual Meeting of West Virginia Medical Association, Beckley, June, 1923

By W. BYRD HUNTER, M. D.
Huntington, W. Va.

Belief that pyelitis is more often overlooked, or wrongly diagnosed, than any other disease of infancy and childhood, led me to the use of this as the topic for my paper.

Although it was not until 1894 when Escherich first called attention to the frequency of pathologic urinary conditions characterized by the presence of pus in the urine, this condition must have existed for ages.

As early as 1844 W. C. Roberts[1] called attention to obscure renal disease occurring in infancy and associated with cerebral symptoms. He described what we now know as spasmophilia with crowing and carpo-pedal spasm, together with what must have been pyelitis. He described the urine as resembling "potato water" and remarks of his inability to obtain a specimen. At that time he offered urinary disease as an explanation of the frequency of convulsions during infancy and childhood.

W. L. Roberts[2] in 1861 called attention to the extreme irritability, with tenderness in the lumbar region, and the highly acid reaction of the urine. At that time he prescribed the salts of sodium and potassium.

Church[3] in 1878 described an abscessed kidney in a child three weeks old.

Gittings[4] calls it the "occult disease of childhood" and points to the rarity of renal and vesical calculi in children of late years, and suggests that the frequent lithiasis and pyonephrosis in the past was dependent in part upon the frequency of unrecognized and untreated pyelitis, which furnished the infective nidus without which calculi do not form.

Etiology. Age and sex seem to be the two most prominent predis-

posing factors. Observation of a series of sixty cases, during the past three years, shows the age varying from two months to twelve years, with an average of two years. The disease is about nine times as common in females. I had six males and fifty-four females.

Summer, with its increase of gastro-intestinal conditions, seems to be the predisposing season. I had fourteen in winter, sixteen in the spring, twenty in the summer and ten in the fall. Two thirds of my cases gave a history of previous gastro-intestinal disturbance; one half had chronic constipation; thirty-two were bottle fed, nine breast fed, and nineteen had mixed feeding.

Bacteriologically, nearly all are agreed that 80 to 90 per cent are due to the colon bacillus; however, this organism may be divided into "strains."

Mathe and Belt[5], studying a series of 835 cases, find the colon bacillus as the cause or 631 or 75%. Other organisms found by them in order of frequency, were the staphylococcus, aureus and albus; streptococcus; lactic acid bacillus; bacilus diphtheria; pneumococcus; bacillus influenza; bacillus proteus, and a few others. They call special attention to the finding by ureteral catheterization, the bacillus pyocyaneus in six cases.

Langer and Soldin[6] offer the only dissenting opinion and question the colon bacillus as the etiological factor, thinking perhaps the primary offending bacterium has not been found, due to overgrowth by the colon bacillus.

Smith[7], of the Massachusetts General Hospital, thinks the intestinal tract the most likely source of infection, especially when due to the colon bacillus.

There are undoubtedly other sources of infection, such as tonsils, teeth, furunculosis, impitigo, chicken pox, pemphigus, infected circumcision, and other septic lesions, in which organisms other than the colon bacillus play the etiologic role.

While most writers agree on the causative organism, the "bone of contention" seems to be the route by which it reaches the kidney pelvis.

The probable routes are, first, through the blood stream, the so-called descending infection; second, through the urine, the so-called ascending, or urinogenous infection; and third, through the lymphatics. I can only give you the evidence.

Cabot and Crabtree[8] by careful observation find that bacillemia preceded bacilluria and conclude that the majority of cases are blood-stream infections. They admit, however, the possibility of an ascending infection by "back-wash," in cases of obstruction, or incompetence of the uretero-vesical sphincter.

Sedgwick and Huenekins[9] failed to produce pyelitis in guinea pigs by injecting colon bacilli through ureteral catheters.

Sweet and Stewart[10] tried cutting the ureters and sewing the ends into the intestine. No infection of the kidney pelvis resulted except through the lymphatics.

Lipper[11] shows that complete obstruction of the urinary flow from one kidney for fifteen minutes makes it vulnerable to coliform organisms circulating in the blood; while Eisendrath and Schultz[12] conclude that infection may pass the

lumen or mural lymphatics, but that almost complete obstruction is necessary for lumen passage, while lymphatic passage may occur without injury or obstruction.

Calmette and others[7] have shown that pigment particles, tubercle bacilli and other bacteria are carried with the fat from the intestine, by the mesenteric lymph channels, through the lymphatic duct, to the blood and all parts of the body.

Writers favoring the ascending, or urinogenous route, point to the increased frequency in females, supposedly due to the short urethra.

Richard M. Smith[7] favoring the lymph and blood stream infection, explains this on the ground that the vulva, vagina and urethra act as breeding places for bacteria, which enter the lymphatics and pass, by way of the blood stream, to the kidneys.

In favor of the ascending route, David[13] experimenting on dogs, with careful technic, concludes that it is possible to infect the upper urinary tract, in unobstructed bladder, through the lumen of the ureter. He tied the ureter, producing hydronephrosis which remained sterile nine out of ten times.

Kretschner[14] shows, by cystography, that regurgitation of urine from the bladder to the ureter may occur in healthy individuals, and points out that a kidney stone will travel from the peevis to the lower end of the ureter, and back again.

Guyon and Albarran injected charcoal into the bladder, ligated the urethra and recovered it from the pelvis in 24 hours.

Helmholz and Beeler[15], taking a neutral position, produced pyelitis in 17 of 31 rabbits, by intravenous injection of colon bacillus; and 10 of 15, by intravesical injections.

The truth of the matter is, perhaps, that all three routes are possible, but the weight of evidence seems to favor the intestinal tract as the most probable source and the lymph and blood streams as the most probable carriers.

Pathology. Pyelitis may be primary or secondary; unilateral or bilateral. The common form in infancy is primary, insofar as the urinary tract is concerned, but is probably always sceondary to some focus outside the urinary tract. This form is usually bilateral.

Kretschmer and Helmholz[16] find bilateral pyelitis in all of eleven cases diagnosed and successfully treated by cystoscope, catheter and pelvic lavage; while Hinman[17] finds the same in four of six cases.

In unilateral cases Smith[7] finds the right kidney most frequently involved, and explains this by direct lymphatic connection between the colon and right kidney, as shown by Franke.

The pathological process is primarily a catarrhal inflammation, with congestion, swelling and exudation of serum and poly-morphonuclear leukocytes. This inflammation may extend to the kidney substance and produce pyelonephritis, or the pyelitis may be secondary to nephritis.

Crabtree and Shedden[18] think that colon bacillus infection may be a progressive disease, in which pyelonephritis is the acute form; pyelitis the chronic form, and surgical kidney the end result.

Small abscesses may be formed in the kidney substance, as shown by experiments of Helmholz and Beeler[15] and Helmholz[19], which in-

dicate that kidney abscesses are much more frequent in blood stream infections.

A primary or secondary cystopyelitis or pyelocystis may result.

Symptoms. In handling infants and young children, we must rely, almost wholly, upon objective symptoms. These little patients have subjective symptoms but are unable to describe them. The only symptoms which occur in sufficient frequency to be considered characteristic are fever and pyuria.

While the vast majority of cases show, at some time, an elevation of temperature, the examining physician will often find the temperature normal. Indeed, the child may have pyuria for weeks without an elevation of temperature.

In typical cases the temperature is intermittent in type, running from normal to 104 or 105. Older children may have chills, especially in the secondary form.

Pyuria is a more constant finding and may be the only one, however it will often require repeated urinary examination to find pus in the urine.

The mother upon questioning, and often without questioning, will tell you that the diapers are stained yellow or brownish-yellow; oftentimes this is the only sign suggesting pyelitis. A freshly-voided or catheter specimen will be turbid, highly acid, as a rule, and will often contain microscopical pus; heat and acetic acid will show a trace of albumen, and the microscope from 10 or 12 to several hundred pus cells to the high-power field, as well as numerous motile bacteria, caudate cells and perhaps a few casts.

Any urine which stains the diaper, or clothing a distinct yellow, and is cloudy when voided, should have a complete examination, both chemical and microscopic.

Next to fever and pyuria, on the list of symptoms, comes irritability. Almost any sick child is irritable, but in no other condition do I find extreme irritability so constant. The child will shriek at the approach of the physician or any attempted examination.

Evidence of pain or tenderness in the kidney region is the next symptom in order of frequency. With the infant upright in the mother's arms, and as quiet as possible, if pressure is made over the kidney, especially the right, either in front or behind, it will be seen to flinch or show other evidences of pain or tenderness. This is a valuable sign and with fever and stained diapers, is very suggestive of pyelitis.

Associated gastro - intestinal symptoms, such as great thirst, anorexia, vomiting or diarrhea are usually present in this, as well as other febrile conditions of infancy and childhood, and may be due to fever and secondary indigestion, or to a primary gastro-intestinal condition to which the urinary condition is secondary.

In older children, urinary conditions other than pyuria, such as retention, painful or frequent urination, may be present. Enuresis may be a symptom, but the majority of cases occur during the "diaper age" before the child is trained. These symptoms are probably due to a concomitant cystitis, or the action of highly acid urine on an irritable vesical mucosa.

All of us who treat children have observed cases of pyelitis with marked cerebral symptoms, vary-

ing from the usual irritability to convulsions and coma.

Brokmann and Erlich[20], writing in a Polish journal, call attention to the marked cerebral symptoms in pyelitis. One had monoplegia and hemiplegia. The spinal fluid was negative and the nervous manifestations disappeared without leaving any residua.

The following case of mine will show how confusing it may be.

Baby D, female, age 11 months, had healthy parents, was full term, normal delivery, normal at birth, and weighed 8 pounds. She was breast fed for six months, when she was weaned and put on a modified mixture of cow's milk. She thrived and did well with exception of chronic constipation, to which her periodic attacks of fever and irritabillty were attributed, and for which she received the customary dose of mild chloride and castor oil. I saw her first at eleven months; she had had a convulsion. The mother gave me the above history and showed me a soiled dry diaper, which was stained with a distinct yellow. Physical examination showed a well-developed and nourished female baby, rectal temperature 104, and respirations 48. She had aroused from a semi-coma and was extremely nervous and irritable. The mother being afraid of another convulsion, asked me to postpone my examination. The bowel was irrigated and she was put on sedative treatment.

That evening she had what the mother called a "sinking spell" (this was probably a chill). My examination at this time showed an elevation of temperature and respiration, fontanelle tense but not bulging, pupils dilated equal and active, no strabismus or nystagmus; ears, mouth and throat negative; some neck rigidity; a positive Cvostek; negative chest; abdomen negative with the exception of tenderness and flinching on palpating the costo-vertebral angle; the extremities were somewhat rigid with a suggestive Kernig; all reflexes were exaggerated.

Meningitis was considered and lumbar puncture advised, but, according to the wish of the mother, was temporarily postponed.

The child was catheterized and the cloudy urine was highly acid and full of pus and bacteria.

She was given potassium citrate, together with small dose of sodium bromide for a few days, after which the bromide was stopped.

Her symptoms disappeared, and, at the end of ten days, her urine, though alkaline, still had fifty to one hundred pus cells to the high power field.

She was placed on twenty grains each urotropin and sodium benzoate daily for two weeks, at the end of which time the urine was practically normal.

She has continued well and repeated urinary examinations are negative.

To summarize the symptoms in my series of sixty cases, 44 had fever; 10 were doubtful and 6 normal. Forty-five had stained diapers; 48 were extremely irritable; 37 gave evidence of abdominal or lumbar tenderness; 16 apparently had painful urination; 7 had chills; 34 vomited; 14 had diarrhea; 21 were constipated, and 3 showed marked cerebral symptoms.

Diagnosis. The only signs and symptoms to be relied upon for

diagnosis are, first, an irregular elevation of temperature, which cannot be accounted for, and usually attributed to some gastro-intestinal disorder; secondly, tenderness in the lumbar region, usually on the right side; third, stained diapers, and fourth, extreme irritability.

Since signs and symptoms are often absent, or misleading, the diagnosis must be made on the urinary findings, which, after all, is the simplest and easiest way.

A freshly voided, or better, a catheter specimen, is necessary, and this is not difficult to obtain. Catheterization is a simple and safe procedure in female infants, or the vulva may be sponged and a test tube, incorporated in adhesive plaster, attached. It is easy to attach a test tube, or bottle, to males. These tubes are put up in one side of the diaper and the mother, or nurse, instructed to note the turbidity and reaction before sending to the office.

The urine should be examined as soon as possible after voiding, and for this, I think it very necessary for one to have his own standard.

Here the pediatricians and urologists differ, the latter basing the diagnosis on the bacteria, while the former use the pus-cell count.

Crabtree[21] says, "It cannot be too greatly emphasized that the cure of pyelitis, as well as the existence of it, must be determined by the presence or absence of bacteria in the urine, not by the presence or absence of pus cells and symptoms."

But for our work in children, where we do not always have a catheter specimen, the pus-cell count serves as a practical means of diagnosis, and, if one has his own working standard, it does not matter whether the urine is centrifuged or not.

Personally, I use centrifugalized urine, centrifuged at a definite speed for a definite time. I endeavor to use the same centrifuge tube and slide for all my urinary examinations. The tube should be such that all but one drop can be poured off, and this spread on a slide, free from grease, so that it is of uniform thickness.

If, under these conditions, I find twelve or more pus cells to the high power field, I make a probable diagnosis of urinary infection. If there is clumping or caudate cells present, together with a slight trace of albumen, in a highly acid urine, the diagnosis is strengthened and I give the "therapeutic test." If, with the urinary findings, I have the unaccounted for elevation of temperature, tenderness over the kidney, stained diaper and irritability, I make a positive diagnosis of urinary infection.

If the urinary findings are negative, repeated urinary examinations should be made. Morse[22] twenty-one years ago said the urine varied from day to day, and hour to hour, and insisted upon repeated routine urinary examination in all sick infants.

But as Helmholz[23] rightly observes, "Pyuria does not mean pyelitis," and pus in the urine does not localize the infection.

Undoubtedly, the great majority of cases of pyuria in children have their pathology in the renal pelvis, but if we wish to be positive of the location, we should seek the assistance of a competent urologist and let him help us in diagnosis as well as in treatment.

By way of differential diagnosis,

I wish to call attention to the similarity of symptoms in pyelitis, pneumonia and acute otitis media. While the child is usually so irritable that a satisfastory chest examination is impossible, routine ear, as well as routine urine examination, will make the differentiation.

Lumbar puncture may be necessary to differentiate from meningitis and complete blood examination required to rule out malaria.

Course and Prognosis. Of my sixty cases, the records show a course from one visit to 3½ years, and while I realize they have not been followed as closely as I should like, I feel that fifty of the sixty are, at least, clinically cured. Ten are still under treatment. I have had no deaths directly attributable to pyelitis.

Crabtree and Shedden[18] believe that pyelitis, with or without medical treatment, is immediately or remotely self-limited except in the presence of stasis, and go on to say where pyelitis persists after two years, it is persisting because of some congenital or acquired obstruction to the outflow of urine.

Kretchmer and Helmholz[16] maintain that pregnancy pyelitis results from infancy pyelitis and insist upon a bacteriologic cure. Pyelitis is very prone to recur, apparently from an existing focus. A doctor friend, in Huntington, told me his little girl had pyuria with recurrent attacks of tonsillitis. Here the focus is, undoubtedly, the tonsil.

Prophylaxis. I believe the most important prophylactic measure is avoidance of gastro-intestinal upsets by a clean, well-balanced diet at regular hours. Foci of infection, such as tonsils, teeth and other septic lesions, should be removed. The habit of sponging the baby from behind forward, as suggested by Ramsey[24] as a possible cause, should be avoided.

The ulcerated meatus, in the circumcised child, as pointed out by Zahorsky[25] and Brennemann[26] as a possible source of infection, causes one to wonder whether it would not be better to leave the protective foreskin, provided by nature, and content ourselves with retraction instead of circumcision.

Treatment. In the treatment of pyelitis, the same general measures, used in the treatment of any disease in infancy and childhood, are applicable.

Any child, running a temperature, should be at rest and as comfortable as possible. By this, I mean the child will probably be more comfortable in bed, but there is no objection to holding it occasionally. In fact, I think any sick child should be picked up for rest and change of position.

A careful, well-balanced diet is essential in the treatment of any sick child. It applies here, not alone as a part of the curative treatment, but as a prophylactic measure in removing any possible focus in the alimentary canal.

All are agreed that large amounts of water should be given. Indeed, good men, Crabtree[27] and Gittings[4] have had good results with nothing but rest, diet and plenty of water.

A record of the intake and output should be kept, and the specific gravity of the urine maintained at or below 1012 if possible.

My routine treatment depends upon the reaction of the urine. If a fresh specimen is highly acid, and it usually is, I begin with the so-called "alkaline" treatment, giving

large doses of potassium or sodium citrate, with or without sodium bicarbonate, until the urine is alkaline, the mother or nurse being instructed to test the reaction of each specimen and report when the urine does not change the blue litmus paper. This usually relieves the symptoms.

Then, I let them rest for a week or ten days, without any drug therapy, and, at the end of this period, start the so-called "acid" treatment, giving urotropine with or without sodium benzoate or acid phosphate.

To my mind, alternating the alkaline and acid treatment is rational therapy, since by changing the reaction of the urine, we change the culture medium on which the organism thrives best.

This method has been satisfactory in my small series and has produced, at least, clinical cures in all my cases.

Cowie[28] reports good results from the use of foreign protein. He produces hyperallergy by the use of horse serum, with the idea that the kidneys might be engorged with blood and a result similar to that which occurs in arthritis after hyperaemic stasis.

Crabtree and Shedden[18] have used highly immune rabbit serum.

Quimby[29] advocates closer cooperation between pediatrician and urologist with the idea of catheterization and pelvic lavage. He says the female urethra is sufficiently dilatable to admit a 16 or 18 French instrument; while in males, it is possible to reach the ureters by median perineal section through which, after dilation of the bladder sphincter, a small cystoscope can be passed.

This appears to be drastic treatment and rarely, if ever, indicated.

Vaccine therapy seems unsatisfactory.

Conclusions

1. Pyelitis in infancy and young children is often overlooked.
2. The colon bacillus is the cause in 80 to 90 per cent of the cases. There are other causes.
3. The intestinal tract is the chief source of infection.

There are other sources.

4. The blood and lymph streams are the most likely carriers, but urinogenous infection is possible.
5. The common primary form is usually bilateral; when unilateral it is usually right-sided.
6. Symptoms are very variable and may be absent.
7. The diagnosis is simple and the man who fails to do repeated routine urinary examinations on all sick infants neglects his duty.

References

[1]Roberts: N. Y. Jour. Med. & Surg.; 3:44, 1840.

[2]Roberts: Dublin Quart. Jour. of Med. Sc.; 32:304, 1861.

[3]Church: Med. Rec. N. Y.; 14: 357, 1878.

[4]Gittings: Internat. Clin. 1:101, Series 32, 1922.

[5]Mathe and Belt: Jour. Urol.; 8: 301, 1922.

[6]Langer and Soldin: Ztschr. F. Kinder; 5:19, 1919.

[7]Smith: Am. J. Dis. Child; 12: 235, 1916.

[8]Cabot and Crabtree: Surg., Gyn. and Obstet.; 23:495, 1916.

[9]Sedgwick and Huenekins: Urol. and Cut. Rev.; 25:423, 1921.

[10]Sweet and Stewart: Urol. and Cut. Rev.; 25:423, 1921.

[11]Lipper: Jour. Path. & Bact.; 24:192, 1921.

[12]Eisendrath and Schultz: Jour. Med. Res. 35:337, 1917.

[13]David: Surg. Gyn. and Obstet.; 26:159, 1918.

[14]Kretschmer: Surg. Gyn. and Obstet.; 23:709, 1916.

[15]Helmholz and Beeler: J. Urol. 2:395, 1918.

[16]Kretschmer and Helmholz: J. A. M. A. 75:1303, 1920.

[17]Hinman: Am. J. Dis. Child. 17: 305, 1919.

[18]Crabtree and Shedden: J. Urol. 6:3, 1921.

[19]Helmholz: J. Urol. 8:301, 1922.

[20]Brokmann and Erlich: Palska Gaz. Lik: Cracow, 1:807.

[21]Crabtree: Boston M. and S. J. 186:530, 1922.

[22]Morse: Am. Med. 3:551, 1902.

[23]Helmholz: Jour. Lancet, 42: 553, 1923.

[24]Ramsey: Pediatrics, 23 : 15, 1911.

[25]Zahorsky: Am. J. Dis. Child.; 10:436, 1915.

[26]Brennemann: Am. J. Dis. Child; 21:38, 1921.

[27]Crabtree: Personal Communication.

[28]Cowie: Am. J. Dis. Child; 24: 179, 1922.

[29]Quimby: J. A. M. A.; 68:591, 1917.

Discussion

Dr. A. A. Shawkey, Charleston:

I want to compliment Dr. Hunter upon his splendid paper. He covered the subject very fully.

There has been a great deal of work done in the last eight or ten years investigating pyelitis, chiefly as to the route of infection. A good many men, regardless of the fact that the cases occur so much more frequently in girls, are inclined to discredit the ascending route of infection. Personally, I think it is more important to get rid of the infection than to try to find out how they got it. Our surgical friends often tell us there is no such thing as pyelitis, but that term serves our purpose. From the practical standpoint I do not think it makes much difference as to localizing the infection. I am inclined to call the presence of free pus pyelitis, and think it is satisfactory.

I think one point mentioned by the Doctor should be stressed, and that is the meningeal type. You do not see many of these cases. I have seen one or two. I remember one definitely, a very typical case in everything except the blood count. That was in a boy baby of eight months.

The Doctor's paper brings out one point, the importance of a thorough examination of the urine. Generally speaking, I think a chemical examination of the urine is not worth very much. I make that statement stronger than I really mean it in order to emphasize the importance of microscopic examination. If you find a considerable amount of pus in the urine you should use the microscope. It is rare to find albumen in acute nephritis in young children, and it will quickly disappear on proper diet. Albumin is not very valuable as a diagnostic indication in these cases, and unless a careful examination is made under the microscope you will be misled.

There is another point about the examination of urine. The Doctor spoke of catheterization, the way of getting it. You have to check up your patients, you have to follow them. The mother cannot catheterize the infant. In female infants,

especially, you will have enough leucocytes in a voided specimen to make a diagnosis of pyelitis. The mother or nurse must be instructed to very carefully wipe off the external genitalia of infants before getting the specimen, or else you will be misled.

I recall another interesting case of the meningeal type which was referred to me by one of my colleagues at home. The child had recurring bronchitis about once a week or ten days, which was very severe sometimes. I was asked to go and see the child and take charge of it. I took a careful history, made a physical examination, and asked for a specimen of urine. I found the urine simply loaded with pus. I put the child on simple treatment, the urine cleared up, and the chest condition cleared up.

* * *

Dr. T. M. Hood:

I want to ask what instruction to give to the mother after these attacks, especially recurring attacks. Does Dr. Hunter allow the child to run and romp and play like other children?

* * *

Dr. O. B. Lynch, Beckley:

Dr. Hunter's paper is well written and timely, and I wish to congratulate him upon the many excellent points he brought out.

There is a type of case often overlooked, those infants frequently subject to diarrhea. As high as seventy per cent of these children will from time to time show pus in the urine. The diarrhea in this type of infant is not a diarrhea for restricted diet. As Marriott rightly remarked, it takes not only calories but cod liver oil as well to cure these infants.

Another point is the use of sodium citrate. Many physicians who are physiologic chemists as well, oppose the use of sodium citrate because not often can you say that the infection is confined to the pelvis of the kidney, and it is well known that the potassium salts are poorly eliminated. So occasionally you may upset the balance in the elimination of sodium and potassium and precipitate convulsions.

I would like to emphasize the occasional value of horse serum. I saw the year-old child of a doctor having severe diarrhea, and the urine showed several hundred pus cells to the field. This child did not respond to alkaline therapy; did not respond to hexamethylenamin, though given in the dosage recommended. Taking the cue anaphylaxis was induced by horse serum. There was no improvement until the child had a violent attack of urticaria. That was eight months ago, and the child has not had an attack since and is doing well.

* * *

Dr. William A. Frontz, Baltimore, Md.:

A favorite method is injection into the renal pelvis of silver nitrate. A one to five per cent solution is used, but we have done it in many cases with little or no relief.

I think likely the most persistent type of chronic pyelitis is due to staphylococcus. These frequently, of course, as has been pointed out, are due to extra-urinary foci. It has been our practice to send the patient on the rounds in the hope of finding the primary focus and treating this in the hope that the pyelitis will disappear. In spite of this we have a great number of cases still infected. Recently we

have been following out the method which consists of giving salvarsan and neo-arsphenamin intravenously. I have in mind two instances of the most resistant form of pyelitis in which a dose of neo-arsphenamin cleared up the infection in a surprising manner. One of these cases had been under treatment on an average of once in two weeks for over a year. His pyelitis was bilateral, and was due to staphylococcus albus, and it cleared up after one dose. Another case has been under observation for three years, and likewise resisted all methods of treatment. He received a dose of neo-arsphenamin, which caused some clearing up, and finally it cleared up after a second dose.

We have also had some bacillary infection, but our observation is that they do not clear up as quickly as the staphylococcus. We have not run our cases long enough to be certain of the results, but at least this method is highly suggestive. Whether the action of the arsphenamin is specific or not, we do not know. Some one suggested that arsphenamin has a formaldehyde radical in it and that the results are due to that.

* * *

Dr. W. S. Robertson, Charleston:

The subject of pyelitis is one of interest to us all. To the urologist pyelitis is pyelitis, whether in an infant or in an adult. Personally, I do not believe anything is accomplished in the treatment of pyelitis by drug medication by mouth. At best, all the treatment is empiric.

I have had no experience at all with salvarsan or neo-arsphenamin, but I do not believe a formaldehyde radical will do any good in sterilizing or in an antiseptic way in the kidney pelvis. In this degree of concentration the colon bacillus, which is the most frequent cause of pyelitis, flourishes, so if we can get any benefit at all from alkaline treatment it is simply due to its diuretic action.

The most important point, it seems to me, is that those cases that do not have urinary stasis recover; and those cases that do have urinary stasis have to have cystoscopic treatment.

* * *

Dr. Hunter, closing the discussion:

I wish to thank the gentlemen for the discussion.

Dr. Lynch questions the use of alkaline salts, and I would like to say that there is the danger of alkalosis, of course. I use them just long enough to make the urine alkaline, and then stop.

Smith, of Boston, explains the frequency of pyelitis in females by saying that the vulva, vagina and urethra in females act as a breeding place for those bacteria which gain entrance to the urethra.

Dr. Frontz's treatment is very interesting, and I would like to hear more about it some time.

As to Dr. Hood's question about instructions to the mother, usually, as I said before, these children are around the age of about two years. As I tried to bring out in the paper, any sick child should be in bed. I think when the temperature is down and the child is feeling better it is all right to let it play and run around as usual, unless there is a question of stasis due to congested kidney or something of that sort. In that case I think the child should be in bed.

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ADDRESS DELIVERED AT THE FIFTY-SIXTH ANNUAL MEETING OF THE WEST VIRGINIA MEDICAL ASSOCIATION, AT BECKLEY, JUNE, 1923

By W. T. HENSHAW, Charleston
State Commissioner of Health

Owing to matters of grave concern both to the State Health Department and to the profession and the general public, it has been absolutely impossible to prepare a didactic or set paper for this meeting. However, I concluded to come here this after and just talk over a few matters of interest to the general profession and to the public.

First I wish to discuss with you the subject of licensing physicians to practice medicine in the State. As you are aware, ever since the creation of the Examining Board, in 1897, physicians have, except for a short period, been required to stand an examination before the Public Health Council of ten or eleven different branches of medicine. The Legislature of 1921 amended the act to require all physicians to be graduates from Class A medical schools, and it does seem to me that the time has come to change the law in this State. I wish to say to you that in my six years' association with the Public Health Council not a single applicant who was a graduate of a Class A medical school has failed. I have a list of all those who failed to pass the examination. Altogether there were thirty-two, and out of the thirty-two, thirteen of them subsequently passed the examination. These thirteen were graduates of Class B or Class C medical colleges; the rest were not even Class C schools. Some of them had taken correspondence courses, and I think the medical education of some of them was confined to Dr. Gunn's textbook or some other such work. I do not think that the barriers ought to be thrown down entirely. As a matter of fact, I have no definite plan, but I do say that you are inflicting an unnecessary hardship upon the graduate of a Class A medical college, who has spent ten or twelve years and ten or twelve thousand dollars, and putting him to unnecessary expense in making him go before the Public Health Council and answer a few technical questions. As a matter of fact, the graduate of a Class A medical school is in very much better position to pass the examination than is the Public Health Council or the State Commissioner. I do not want you to think that there is any reflection upon the members of the Public Health Council. My observation has been that they are some of the best men in the State, high-minded, honorable gentlemen, who always consider the interest of both the profession and the public. But you are inflicting unnecessary hardship upon these gentlemen by requiring them to meet three or four or five times a year, with practically no pay, losing time from their private practice, for conducting these examinations. I do wish that you would appoint a committee to go over the medical practice act and propose some scheme to the next legislature and see if we can not modify our medical practice act so that men who are qualified to come into West Virginia to practice medicine can do so without undergoing the unnecessary hardships which we are inflicting upon them now.

Furthermore, I wish that you

would amend the reciprocity regulations for physicians coming into West Virginia. There has been an influx, not into the rural districts, but where they could capture a good practice or where the field is open for exploitation. They are usually not the best from their towns, but they come in and get very desirable contracts at the expense of the local man, of the resident and the citizen, getting a good revenue from the State for a year or two and then leaving. It has been my experience several times that these men come in, pick up ten or twelve or fifteen thousand dollars in a year or two, and then are gone. We ought to be able to reciprocate with any state purely on personal merit, and for no other reason. Our present rule requires two years of practice in the state from which the application is made, but there should be no hard and fast rules about reciprocity.

Now, some of the things concerning ourselves. The Department must confess quite a chagrin in that the physicians have failed utterly to comply with the vital statistics act. The reason for it I do not know. There has been no disposition on the part of the State Health Department to inflict any punishment or cause any embarrassment in any case where a physician has failed to comply with this act. But in some counties this law is almost entirely disregarded. This is true particularly as to deaths. There are just about half of the counties of West Virginia that come within the Registration Area of the United States so far as the reporting of births is concerned, and, of these, the first eight or ten all seem to be this group about here. Raleigh County stands first in the State; McDowell second; Logan third, and Mercer fourth. Mingo is sixth. Mingo has a very competent health officer, who has brought the reporting from none up to 32 per cent. What the reason is I do not know. But vital statistics are fundamentals. This information is public property. The state or county or city has a right to know something of its citizenship. I was very much impressed a day or two ago when a gentleman formerly living in the District of Columbia came to see me, and took out the registration paper of one of his children. I do not want you to think that I am any better than the rest. There in the list of counties reporting is my own home county, which ranks fifty-first, out of the fifty-five, in the number of births reported. But when those gentlemen wake up and find that they stand third or fourth or fifth in the number of deaths reported, the surprise will be on the other side.

A bill was introduced in the legislature to go back to the antiquated system that prevailed in this State for a number of years, to report these cases to the county clerk. Singularly enough, the bill was introduced by a physician. If there are any imperfections in the bill, if it works any hardships on the physicians, let's get together and see what they are. If the objection is that there is no fee, why we are willing to pay a fee, but I do not think that is the reason. Under the old system a fee was paid, and now the physician gets nothing. Let us find out what the trouble is and amend the law so that we can know who is being born and who is dying in the State. In other words, give

the general public the information it has a right to have.

There is one other matter that I wish to bring to your attention, and that is the reporting of contagious diseases. I do not know the cause, but I assume that possibly it is our present method of administration of public health affairs that is responsible for the failure of physicians in nearly every instance to report communicable diseases. We do know that certain counties in West Virginia rarely report a case of an infectious disease. Why, almost a superficial survey recently made in one of the county seats of the State showed forty-five per cent of the people to have had typhoid fever, and not a case of typhoid fever has been reported from that community—not one. It does seem that the present antiquated part-time health system ought to be a matter for serious concern to the organized profession of the State. Year in and year out our morbidity and mortality rates remain about as they were years ago. The same thing is true of diphtheria. It is amazing to see the inquiries that come in from physicians and health officers as to the methods of fumigation—a system that has been absolutely obsolete, except for some psychological effect, in every intelligent community in the country. We find, in going to the county court for the purpose of getting commissioners to organize and support a whole-time health unit, that the local health officer is the stumbling block. I suppose he does get enough out of it to pay his office rent and to secure a desk, but it gives him an advantage which he has no right to have.

These are matters that you ought to think of seriously, taking such action as you may deem expedient or wise, and see if we can not, between the representatives of your organization, the Public Health Council, and the public, improve our methods of organization and take care of the interests of the public.

Discussion

Dr. J. Howard Anderson, Marytown:

I think our Commissioner has touched one of the vital points in this whole question. He alluded, I believe, to Mingo County as having come up very much in the last year or so in the reporting of births, deaths and contagious diseases. It is just within that time, I think, that that county has had a whole-time health officer, and I think the improvement is due entirely to his efforts. I think the public health would be greatly benefited throughout the State and the records improved if in every county we had a full time health officer.

* * *

Dr. H. G. Steele, Bluefield:

I enjoyed Dr. Henshaw's talk very much, and I think we ought to get behind him and help him in every way we can. There is one point about not getting reports. If we had more full-time health officers we would have some one to look after that work and do it. A great many of our present health officers are put up for political purposes, and draw a salary of twenty-five dollars a month and do nothing. We have a full-time health officer in Bluefield, and we are getting some results. I think it is up to us to raise a fund in some way

and pay something, and see that they do the work.

* * *

Dr. Robert A. Ashworth, Moundsville:

I wish to tell you of a condition we have in Marshall County. We have a county seat with a population of about 12,700, and two or three very small towns in the county. There are about 38,000 people in the county. I am sure that the sentiment there would be to do away with the law requiring city physicians and to have a whole-time county health officer, but in that county there are 27,000 people that the health officer would have very little to do with. He would have just about 11,000 country folk to care for. I hope that when we get into legislative action we can do something about that.

* * *

Dr. James R. Bloss, Huntington:

Dr. Henshaw did not mention one thing about the counties in which he is getting results. They are counties in which there are large coal operations, and when he goes to the county there are some representatives of the coal interests there who will pay five or six thousand dollars to put over this work.

Now, to come down to reports from doctors. That is a law, and we are not good citizens if we do not report. I report just because it is the law. We are not good citizens if we disobey the law. There is another thing. A chiropractor came over to me just before the chiropractic bill was introduced in the legislature. He said, "I do not expect you to support the bill, but I want to ask you not to oppose it." I said, "That is another thing." He said, "Well, if you want a fight, we have plenty on you." Now, gentlemen, we can not expect chiropractors or anybody else to obey the laws of the State unless we physicians obey it. If we interest county bodies we can make the county courts see why we need full-time health officers. We have to fix the thing so that county health officers do not have to stand in with anybody. The health officer will be a very unpopular man, but he can enforce the law.

* * *

Dr. C. A. Ray, Charleston:

The fact of the matter is that the doctors in West Virginia are not politicians enough. Even Dr. Henshaw failed to state the fact that in West Virginia there is less money spent and less levy made for the Health Department than in any other State in the Union. We can never do much until we get money appropriated for this work. When we get the money and get the men and pay them to do the work it will be done, and not until then.

* * *

Dr. Aubrey C. Belcher, Huntington:

This is a subject which I have been wanting to discuss for a long time. We began first with preventive medicine in the beginning of the twentieth century. Then came State medicine. We, in our indifference, have permitted an outgrowth of cults. I think Dr. Henshaw has hit one of the most salient points. Cheap help is the most expensive help. Recently, in Cabell County, we got up a fund for fighting the chiropractors. I hope the Association will appoint a committee, an active committee, a committee with bulldog tactics, and will go into the legislative halls and put

the medical profession where it has always been, the first to consider the welfare of the people.

I was struck by another thing Dr. Henshaw said, about the regulation of the medical profession. I have known the profession in five states, and I do not like that restriction about physicians coming in from other states. It would be unwise, to say the least, while we have no means for educating young men, to do away with reciprocity and say to men from other states that their education requirements are not up to ours.

* * *

Dr. John N. Simpson, President:

I hope that some one will discuss the question as to licensing physicians without their taking an examination before the Council.

* * *

Dr. Steele:

I do not want Dr. Henshaw to think that I meant that the money for local health work should come out of the physicians' pockets. I do not think so. We do enough. The public should pay for it.

DIAGNOSIS OF EXOPHTHALMIC GOITRE

Read Before the Cabell County Medical Society

By WM. B. PORTER, M. D., Roanoke, Va.

A study of the symptoms of a disease involves an analysis of those disturbances produced by the structural, metabolic and psycho-neurotic changes incident to the perverted physiology in the affected being.

The diagnosis of a disease must involve a careful weighing of the evidence afforded by a study of the symptoms, the abnormal physical phenomena, the collected laboratory data, and lastly a broad and common sense amalgamation of all these into a composite picture of the clinical status of the human being.

During the last few years much has been accompished in the study of the endocrine system, yet in no class of patients is one so liable to be tripped by symptoms or does one encounter such bizarre and uncertain physical phenomena as in the suspected case of exophthalmic goitre.

The perverted physiology and bio-chemical changes occurring in hyperthyroidism involve the entire somatic system; consequently in no disease is it so important that the diagnosis carry with it a broad and complete understanding of all the immediate and collateral evidence of disturbed function, for it is only upon this complete inventory that a rational and sane therapy can be based.

In this discussion we are not interested in those patients who have a "lump" in the neck, and who have none of the primary or secondary manifestations of exophthalmic goitre and no elevation of basal metabolism. We are interested in those patients who with or without thyroid enlargement present symptoms and signs best grouped under the single term of "sympatho-mimetic," the term of Barger and Dale to denote "manifestations that are tantamount to electrical stimulation of the thoracico-lumbar division of the involuntary nervous system, or to stimulation of this same system by adrenalin." Such signs include the cardinal clinical symptoms of tachycardia, exophthalmus, goitre and

tremor, and the minor symptoms of exophthalmic goitre such as diarrhœa, sweating and palpitation.

The work of Lieb, Kessel, Hyman and Lande has shown that this symptom complex can and does exist in patients who have no elevation of basal metabolic rate or who never have had such a disturbance of catabolic function. These observers have coined the term "autonomic imbalance" to denote that group who have all or most of the primary and secondary manifestations of exophthalmic goitre, but who do not and have not had an elevated basal metabolism, a group undoubtedly representing a much larger percentage than has been generally appreciated.

Recently a woman thirty-six years old consulted me complaining of nervousness, palpitation, tachycardia and dyspnœa with exertion. She stated that eighteen months previously she was operated on in another city at which time a partial thyroidectomy was done. Her symptoms now were the same as they were prior to her operation. At this time she was gettin radiation over her thyroid which had begun seven months previously. She felt that her symptoms were exaggerated rather than improved.

Examination disclosed most of the orthodox signs of exophthalmic goitre, i. e., slight exophthalmus, tachycardia, tremor and pronounced sweating of the hands and axillae. The basal metabolic rate was 36, 40, 38. This patient was given thyroid extracts and a tonsillectomy was done and in six weeks time she reported feeling practically normal.

This case well illustrates one of the main points I wish to make in the consideration of the diagnosis of exophthalmic goitre. The diagnosis is complete and accurate insofar as it carries with it the information necessary for a sane and logical therapy. The patient was undoubtedly one suffering from "autonomic imbalance," who incidentally had a goitre. This disturbance of her involuntary nervous system had been activated by a focal infection in her tonsils and accentuated by the psychic insult of frequent abortions. The hypothyroidism was no doubt the result of the thyroidectomy and prolonged radiation. The basis upon which treatment was begun and resulted in cure was not the disturbance of her involuntary nervous system but the knowledge derived from a study of her basal metabolism which showed a markedly depressed rate.

In a study of patients who present the manifestations of a Grave's syndrome, one must approach the subject from the standpoint of disturbed physiology with its consequent biological and chemical alterations. To gain the necessary data one must visualize if possible the pathogenesis of the various steps in the evolution of the disease processes.

There is increasing evidence favoring the hypothesis that in true exophthalmic goitre the primary onset of the disease is in the autonomic nervous system, manifesting itself by the cardinal signs of exophthalmic goitre minus increased metabolism. Later, due to psychic insults, infections or unknown causes, there is added thyroxin or an antecedent of thyroxin intoxication with a consequent increased metabolic rate, the latter picture being the terminal stage of an evolutionary process.

If such an hypothesis be correct, and there seems to be little doubt that it is true, the diagnosis of exophthalmic goitre involves the study of two distinct processes; first, those disturbances incident to excitation of the thoracico-lumbar division of the involuntary nervous system, and secondly, those alterations in metabolism incident to thyroxin intoxication.

In the routine study of patients one encounters a large group whose symptoms are sufficiently suggestive to place them in the category of hyperthyroid suspects. These patients include those suffering from the neurasthenic states, disturbances of the autonomic nervous system, and functional derangement of the neuro-circulatory apparatus. If there should exist a coincidental goitre the picture may be most confusing.

Means and Burgess have recently studied a group of border line cases with particular reference to differential diagnosis. They found that the majority of the type with incomplete evidence of abnormal thyroid function had a normal metabolism. If a basal rate is secured, an increased basal metabolic rate is strong presumptive evidence of hyperthyroidism. They conclude that the metabolism test is distinctly useful in differential diagnosis.

I do not believe that these patients can be differentiated by any one laboratory test. It is usually possible to place them in their proper category by a clinical analysis of the individual, using the laboratory finding as confirmatory evidence with due regard for its limitations and pitfalls, yet the work of Benedict, Means, Aurb, Roth, Carpenter, Boothby, and a host of other observers has repeatedly shown that increased basal metabolic rate is the most reliable single sign we possess in exophthalmic goitre.

The study of the endocrine system is in its infancy. The advances made are too frequently based upon speculation and hypothesis, hence conclusions are uncertain. The diagnosis of thyroid disease has not been simplified by any of the newer methods of study; rather it has become more complex, but this is not regrettable if we are able to more accurately define the type of patients demanding selective therapy.

The determination of this fact may be accomplished by a careful analysis of the existing symptoms and abnormal physical phenomena, yet there are few of us who would be willing to treat a case of typhoid fever without a clinical thermometer Then why subject a patient to a major operative procedure or radiation until it has been determined with some degree of accuracy whether such drastic measures are indicated? They may be, but there is a fair chance that they are not.

Various laboratory procedures have been introduced as an aid in determining hyperactivity in thyroid disease, the Goetch test, Kottman's reaction, the Glucose Mobilization Rate and many others, but undoubtedly the use of the closed calorimeter is the simplest and most consistent method at our command. The value of this method is in direct proportion to the appreciation of the necessity of careful and repeated tests. It is a laboratory procedure and is, therefore, not devoid of possible error, but when one properly balances it with a careful

history, an analytical analysis of the symptoms, and a painstaking survey of the physical phenomena, one then has that data necessary for a logical diagnosis.

The natural instinct of man is to adhere to fixed methods and especially is this true if the deviation involves the use of some method not absolutely and entirely of a nature which enables him to utilize his clinical acumen. We are all fed up on laboratory procedures. In advocating the routine use of calorimeter methods in the study of the suspected case of hyperthyroidism I do so after carefully studying the subject and observing a considerable number of real and suspected cases of hyperthyroidism. To quote Harvey, "Doctrine once sown strikes deeply its roots, and respect for antiquity influences all men."

In a recent publication from one of the largest thyroid clinics in America the statement is made that the pulse rate is a fair index to the degree of thyroid intoxication. Such a statement seems ridiculous to anyone who has had a chance to study the cases of so-called effort syndrome or neurocirculatory asthenia which developed in soldiers during the late war. Practically the same condition was described by the late Dr. DaCosta in the Civil War. These many years have elapsed and still patients who have tachycardia, nervousness, tremor, sweating, and at times exophthalmus, are being wrongly classed as cases of exophthalmic goitre.

It would seem then that the diagnosis of this perplexing disease must rest upon the presence of two main groups of findings; first, those symptoms resulting from the super activation of the autonomic nervous system manifested by tachycardia, nervousness, diarrhœa, tremor, sweating and exophthalmus; and secondly, by increased catabolic physiology manifested by loss of weight and increased metabolism. The first group existing alone is best designated autonomic imbalance. Autonomic imbalance plus increased metabolism constitutes thyroxin intoxication and is designated exophthalmic goitre.

THE TREATMENT OF LOBAR PNEUMONIA IN INFANCY AND CHILDHOOD

Read at the Annual Meeting of The West Virginia Medical Association, Beckley, June 1923.

By FRED BEN QUINCY, M. D., Panther, W. Va.

Text-books in general tell us that the treatment of lobar pneumonia in childhood, unless complicated, is superflous.

This, in a great measure, may be true, but to the man who has much to do with the treatment of children, this subject seems at this particular season one worthy of discussion.

In that pneumonia has many symptoms which, when evidenced in a mild manner, are of little import, yet when showing themselves in an aggravated form demand judicious and thoughtful consideration with reference to their management.

It is equally true that pneumonia, like typhoid fever, is a self-limited disease, but that, in itself, is no reason why we should not attempt to make the journey as smooth as possible for little patients.

Some clinician several years ago

divided typhoid fever, as to ultimate outcome, into three (3) classes:

(1) Those cases which die in spite of all treatment.

(2) Those cases (often unrecognized) that recovered without treatment.

(3) Those cases to which the medical attendant is entitled to some credit for a happy outcome.

This is certainly true of pneumonia.

In this paper we do not wish to take up your time with symptoms, diagnosis and prognosis, but to give you an outline of what we do for our patients as to the treatment of this condition.

Of all the diseases to which infancy and childhood are heir, none is as over-treated, hyper-treated, or super-treated as is pneumonia.

At this juncture I think it is not amiss to quote the timely admonition of one of our foremost clinicians, Hobart Amory Hare: "When called upon to guide a patient through an illness, the physician should be a watchman always, and a therapeutist only as necessity requires."

To give a drug or inaugurate any procedure without some specific indication is a grievous error.

Probably the first symptom to attract our attention is temperature.

Temperature, as we understand it, is reaction to a toxin exerting its effect on the heat center. It is to be presumed that if we have a good resistive power we have a certain amount of temperature. The weakly marantic child will react feebly, but will be equally as ill as the one running a high range. Langley Porter is of the opinion that temperature is the result of an acidosis. (This may be a point well worthy of our consideration.)

As temperature is one of the first symptoms for our consideration, this question naturally arises, "When, how and why should we treat it?" A fair rule for our guidance is the following: An hyperpyrexia with or without nervous symptoms (if nervous symptoms are not present, they will appear later).

A moderate temperature which is accompanied by restlessness, twitching, or delirium.

A sub-normal temperature with or without any of the above nervous symptoms.

If your patient has accustomed himself to his condition and there is no evidence of brain irritation, let the temperature alone. We should not use temperature reducing measures to produce well-appearing temperature charts.

When it becomes necessary to treat temperature, or the lack of it, as previously outlined, then we have the choice of the use of drugs and of hydro-therapy, or both.

Up to a certain point temperature need not be cause for alarm, but that point depends on the observatory acuteness of the attendant, and is only acquired by experience.

When considering the matter of temperature control, or any other physical procedure in the treatment of pneumonia, it is a fairly good idea to reverse the old axiom of "Spare the rod and spoil the child" to "Spoil the child and spare the heart."

Temperature Reduction

For the ordinary temperature, first try reduction by use of the cool

sponge—one part alcohol and one part water. If alcohol is not to be had, use vinegar one part and water one part. If, after reasonable trial, this fails, then we may resort to cool pack.

The Cool Pack—Wrap the child in a Turkish towel and sprinkle well with cool water, starting at eighty and lower the temperature gradually, (ordinarily do not go below seventy), then wrap the child up in a blanket for twenty (20) minutes; friction should be employed while the sprinkling is being carried on. The temperature should be taken at the end of the pack, and pulse should be carefully watched. At the beginning of the pack, cool applications should be applied to the head and the hot water bag to the feet. In some cases this will not reduce the temperature, and more drastic measures should be resorted to. Some one has said that drastic temperature measures should not be employed in treating children. No one questions the fact that tracheotomy is a drastic measure, but it will save life—so too, when confronted by a temperature that threatens the nervous stability of our patient, then drastic measures are in order. This is a rather modified "slush bath." Wrap your patient in a Turkish towel and start springling at 98 degrees and run down as low as you can—or stop at sixty and continue the stream, using fraction and cold to the head and heat to the feet. Do not sprinkle more than five (5) minutes, and then wrap up in a flannel blanket. Watch the pulse and temperature, and at the least sign of cyanosis or shock, discontinue and give a mustard pack (hot). I have had occasion to use this one twice, and you will certainly get results. It has a decided advantage—it doesn't use the patient's strength and as a rule does not frighten as does the bath.

Children, as a rule, do not take kindly to the ice cap, and in its stead I use compresses wrung out in cold water, to which has been added bay rum or cologne water. Children's scalps are very susceptible to cold, and should the covering of the cap slip a frost-bite might result.

The decided advantage of the pack over the bath is the patient's attitude toward the bath—it usually frightens the little fellows. It is anything but consistent to endeavor to overpower a child so that we may use measures intended to spare his nervous system and his heart muscle.

Our procedure should be guided to some extent by the attitude of the child; if you can win him over well and good, but if not, don't use force.

Don't overlook the fact that the bath thermometer is a more accurate instrument than the hand or the bared elbow.

All temperatures should be taken rectally; any axillary reading after a bath is liable to be inaccurate, owing to the presence of moisture.

Low Temperatures

If there are any two conditions a man would gladly wish on his neighbor, it is a typhoid or pneumonia with a low, or sub-normal, temperature.

In low temperatures you are dealing with an asthenic patient each of which is a law unto itself. Of all patients, they need critical attention. In these cases the time hon-

ored cotton jacket finds a very useful place in our treatment, as does any measure calculated to raise or conserve body temperature.

Sub-normal temperatures, other than critical, are evidences shock possibly following or during some hydrotherapeutic procedure. They should be treated as critical or post-critical cases and will be mentioned under "crisis."

It might be well, just at this time, to say that it is our duty to instruct some trustworthy person as to the steps to be taken should an accident of this kind occur. In shock, or marked cyanosis, there is one measure that any person of ordinary intelligence can resort to, and that is the hot mustard pack.

If you have a critically ill baby the use of this measure may be a life saver. Be specific in your directions. Don't say, "Mother, if the baby gets grey or blue or cold just give it a mustard pack." Tell her how to do it and the strength of the solutions. The Germans use one cupful of mustard to a quart of water. This is rather stronger than I have used, but it won't hurt. Be sure to protect the eyes and the nose from the fumes.

Two tablespoonfuls of ground mustard and one quart of water, as warm as can be borne at the elbow (if they have no thermometer).

Immerse anything, a towel, flannel blanket or a Turkish towel, and wring it out till it no longer drips, then wrap it about the child, using a flannel blanket outside. This can be left on for twenty (20) minutes or longer, depending on the effect on the skin.

This procedure is especially valuable in respiratory failure and in cases where there is marked cyanosis.

The use of colonic irrigations of sodium bicarbonate or the use of the drip method are valuable, provided there is no diarrhœa and that the tube does not cause too much discomfort. Both reduce temperature, add fluid to the tissues, and maintain alkali reserve. The enormous amount of moisture lost by the lungs as a result of rapid respiration, and in some cases the high temperature, call for the free use of fluids, no matter what method is used to administer them.

The Bowels

If there is a diarrhœa and it is evident that nature is doing her utmost to rid herself of the toxic matter, I do not give a purgative.

If there is constipation, citrate of magnesia in from one-half to one glassful repeated as needed. If you prefer you can use one of the more elegant preparations of castor oil, such as "Laxol." Calomel in repeated small doses in older children, followed by citrate, acts well, but I do not give it to babies, and this is especially true if there is a diarrhœa. After its use it is true that you get a goodly amount of "cold," which is nothing, oftentimes very gratifying to the baby's parents, but this I think in most instances an evidence of a very much irritated bowel. It is well enough to keep the bowels open, but if you can do so without provoking or irritating the alimentary tract, you have gained considerable ground. The determining factor in pneumonia is oftentimes a diarrhœa, and I believe that the gastro intestinal tract assumes the "just start some-

thing and I'll show you what I can do" attitude.

Any food or drug which may directly or indirectly cause vomiting or diarrhœa is to be given with caution—if in doubt don't employ them.

Tympany

One of the most troublesome symptoms we have to deal with is that of distension. It is due, in many cases, to a faulty diet—sweet milk—or the putrefaction of the swallowed secretions remaining in the bowels due to the tardy action of the intestinal tract, and in many instances it is an evidence of a profound toxemia, an intestinal paresis resulting.

That due to dietetic error can be corrected by eliminating the offending foodstuff, limiting the feeding time and the quantity.

That which may be due to secretion putrefaction is probably best met by small doses of citrate of magnesia, turpentine stupes (hot) to the abdomen and enema of asafœtida solution. Sometimes a simple enema will do all that is necessary, or a glycerine suppository. The use of the rectal tube for short periods only.

As there is no fixed and hard rule as to which is the offending factor, if the above measures prove ineffectual, give surgical pituitrin in 15 to 30 minim doses. Repeat in two or three hours if necessary.

Distension due to pneumococcus peritonitis falls to the hands of the surgeon.

Pain

For pain in pneumonia we have the choice of several preparations of opium. Personally I prefer codeine in suitable doses, either by mouth or hypodermically. Paregoric and deodorized tincture have their advocates.

If you have restlessness which is due to pain and high fever, give your opiate, and in sufficient dosage if given hypo to make its repetition infrequent.

At the onset the mustard plaster (1 part mustard and 2 parts flour) generally controls the condition. This can be repeated as necessary. Remember that some skins can be blistered in ten minutes and some in thirty, so don't tell the mother to leave it on twenty minutes—tell her to watch the skin.

As the location of the exact site of the condition is often problematical, tell her to take in the whole chest in the back. If the child is old enough to indicate the location of the pain (except the right belly) apply accordingly.

Don't forget that a good hot mustard foot bath has a wonderful effect on any congestive process starting in the respiratory tract. The foreigner still sticks to his leeches, and they act well but are unsightly instruments.

For restlessness alone, the bromides are indicated well diluted. Pleuritic pain, or a troublesome cough, certainly demand opiates for their relief, keeping in mind their effect on the bowels.

Cardiac Stimulation

This should be covered by one rule—"If the heart needs stimulation—stimulate and do it well," but don't give stimulants just because your patient has a heart and pneumonia at one and the same time.

What stimulant you use is in a great measure a matter of personal choice.

Digitalis, Digalen, Strophanthus are the more slowly acting but more lasting, and find a useful and very necessary place in our treatment.

Aromatic Spirits of Ammonia, Camphor in Oil, Adrenalin or Epinephrine 1-1000, Caffeine Sodio-Benzoate, Strychnine, Nitro-Glycerine (especially useful where there is marked cyanosis and it is evident that the heart is doing its utmost.) In other words, relieve the tension by bleeding the patient in his own veins. This result is certainly assisted by giving a hot mustard pack at the same time.

Respiratory Stimulants

Atropine, Hot Mustard Pack, Oxygen. The use of respiratory stimulants depends entirely upon the needs of the individual case. Don't use them unless there is some specific indication, cyanosis, etc., irregularity of rhythm or depth of respiration or the sudden cessation of the act. Unless there is a massive pneumonia, the remaining healthy lung tissue will aerate all the blood delivered to it. If, however, as a result of a toxemia the respiratory center is affected, then both medical and mechanical means should be brought into play.

Don't forget that your air hunger may be due to an added acidosis and your sodium bicarbonate is indicated either by mouth or rectal drip or intravenously or subcutaneously. In using solutions of soda bicarb, either in the veins or subcutaneosuly, be sure that you use the solutions prepared by some reputable chemist and are ready for instant use. Don't use the ordinary household soda as boiling changes the bicarbonate into the carbonate, or washing soda, and sloughing will result.

The Crisis

You are in an emergency from the day you start treating a pneumonia, and this becomes more apparent as you draw near to the day of the crisis.

Some one has well said that the time to treat a pneumonia is at the crisis—and I think a great many of us believe that to be good logic.

If you cannot be with your patient at the time when the crisis is expected, be sure to tell the attendants what to look for and what to do when it occurs.

You may have many cases which weather the crisis wonderfully, and you may become the least bit "cocksure" that everything is going to go smoothly—only to run across one that does not treat yo uquite so kindly.

The fore-armed man who attends an obstetrical case never fails to look up his stock of pituitrin and ergot before going on the case, and this is especially true if it is a multipara and, if especially concerned, does not fail to have a hypodermic or so loaded only to sprinkle the floor with contents after it is "all-over"—rather a wasteful practice, but a mighty good habit to fall into. You should not wait for the warning to prepare—anticipate it.

Some of the things to have ready should they be needed: Caffeine Sodio-Benzoate, Camphor in Oil, Atropine, Adrenalin 1-1000, Strychnine, Normal Salt, Hot Strong Coffee, Nitro-Glycerine, Oxygen Outfit complete, one with lung motor attached, Rectal Tube, Intravenous Outfit, Hot Water Bottles, Mustard Pack Solution ready for use.

The use of the above is apparent and requires no further remarks except the use of oxygen — don't

leave it to the last; it is not a last resort measure by any means. The inhaler suspended near the child's face will do a great deal of good, and if there is marked cyanosis, the mask to the face for twenty minutes. The following administration is recommended by Porter: Six to eight bubbles to the minute. Oxygen is not a drug.

Oxygen should be passed through warm water before being administered. This can be accomplished by using a Wolfe bottle outside of which we can tie a hot water bottle.

Diet

It is surprising how little the appetite is affected in some cases. This is noteworthy in babies—they want to nurse as in health; in other cases, especially older ones, there is anorexia.

It is never wise to force food in any case, nevertheless, the question is often asked, "Doctor, what shall I feed the patient?"

It is a well-established fact that the more important element is the fluids.

It is sometimes a task to get the patient to take enough liquid food to overcome the fluid loss.

It is of utmost importance that we maintain a water balance, or we are almost certain to have an acidosis to deal with. I do not mean by this that you are to water log your patient, but fluids must be given as often as possible, utilizing every avenue and intake. When we find a fluid which is both food and drink, and it agrees with the patient, we are indeed fortunate.

How often does the mother ask this question, "What shall I feed the child?" and the attendant, having in mind the dictum "forced fluids and a light diet," generally answers, "O, give him a light diet and plenty of fluids." To the average mother this sounds very nice but does not mean anything.

What is a light diet and what do you mean by abundance of fluid and what kind? Be specific in your directions and if necessary write it out.

We have found some of the following foods and drinks of service and have appended their caloric value:

Whole egg lemonade, 249 c. to glassful; plain lemonade, 174 c. to glassful; lemonade with egg white, 191 c. to glassful; buttermilk, 80 c. to glassful; potato soup, 135 c. to 4 ozs.; soft custard, 219 c. to 4 tbs.; oatmeal gruel, 93 c. to 2 tbs.; rice custard, 131 c. to 4 tbs.; ice cream, 189 c. to 2 tbs.; tapioca pudding, 172 c. to 3 tbs.; apple sauce, 291 c. to 3 tbs.; toast, 31 c.; soda crackers, 25c.; carbonated sweet milk, 21 c. to oz.

Owing to the low caloric value of broths and unthickened soups, they cannot be considered foods, but furnish a goodly amount of fluid and should contain a minimum amount of salt.

In case of a sugar diarrhœa, soups and broths with buttermilk, also protein milk, furnish a rational diet. Lemonade sweetened with saccharin is a good substitute for the sweetened variety.

If the child is at the breast and doing well, don't interfere, but if there are too frequent green bowel actions, it is a good policy to lengthen the intervals and the time at the breast, substituting sweetened water feedings.

Over-feeding is the precursor of an acute indigestion, and this excess of food taken in is an effort on

the part of the child to obtain fluids, which can be overcome by giving fluids.

Any digestive disturbance is treated as if it were primary.

An acidosis is managed as under any other condition—prevention being the more desirable line of treatment.

Constipation is best treated by an enema, suppository or cascara.

Conclusion

Don't be too scientific to be human, nor too self-limited to give your patient the best that present knowledge of this condition has to offer.

Don't forget that it is the little things which make for or against us. Don't forget the toilet of the mouth—to cradle the bed clothing.

It is better practice to feed with a medicine dropper or Breck feeder than with a spoon. It does not harm to carry a room thermometer in your grip, and less to hang it in your patient's room, marking 60 degrees with ink, and see to it that they keep the room temperature at that point. If you can get it, the sun parlor is the place ideal for your patient—but unfortunately they are not over-abundant in McDowell County, so do the next best thing—a room with all the windows open. Pneumonia is contagious if the attendants are careless. Burn all the lung and nasal discharges.

After the crisis, watch your patient for a few days at least; he may have a febrile rise—it may mean empyemia. Don't forget that there is considerable space in the chest cavity for pus; also that your patient has a heart, and pericardium, and a pair of kidneys. The greatest errors made by most medical men are not due to "not knowing," but to "not looking." Your temperature may mean empyemia, and the pus will not be located in the chest, as you fully expected, but in what you took for granted to be a perfectly healthy pair of middle ears.

WHY DOCTORS BUY WORTHLESS AND FRAUDULENT SECURITIES

SAMUEL O. RICE
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Physicians who number bond men, investment bankers, among their patients frequently complain that bond men squander their health.

"The heads of three bond houses," my family doctor said to me the other day, "are patients of mine, they and several subordinate officers of other houses, and I'll be hanged if they aren't more careless with their health than is all the rest of my practice put together. They'll work like demons for months at a time and then try to make up for the loss of daily exercise and common sense routine by trying to crowd a year's recreation into a few weeks. They'll eat, and drink, too, a lot of stuff that's bad enough at home, but is doubly damaging when they take frequent business trips with irregular hours, heterogenous food and the unavoidable strain of an exacting business. They are the worst spendthrifts of health that I know among intelligent men."

"At least they are not as bad as doctors," I replied, to my friend's amazement. "When they need

medical service you've got to admit they don't go to quacks for it. They go to the reputable profession and to recognized specialists, don't they?"

"What has that got to do with it?" the doctor asked. "Physicians can't avoid irregular hours, but they're not—"

"The argument is," I interrupted, "on the use of common sense, isn't it? You say that bond men don't use common sense about health. But as lax as they are in that they are not as lavish in squandering health as physicians are in squandering money in so-called investments. Bond men at least exercise common sense enough to realize that it requires a doctor to exercise medical judgment for them. How many physicians realize that it requires a "doctor" of investments to select investment securities dependably? Ever hear of an investment banker being swindled by a quack practitioner? No, because they know that you've got to go to reputable practitioners. How often are physicians swindled by quack investment schemes? There are just two reasons why doctors, as a class, are notable for buying worthless securities. One of them is their failure to realize that in seeking good sound investments you have to do exactly the same thing you do in seeking health—consult an honest, competent practitioner."

"What's the other reason why we buy worthless securities?" my friend asked with a smile. "Because doctors are not business men?"

"That's the reason usually given, but I don't believe there's anything to it. The second reason is too much optimism."

"When did you study medicine, that you speak so authoritatively on the profession?" my friend laughed.

"Only a short course in bacteriology, because it was intensely interesting," I replied, "but my several roommates in college were medical students. Subsequently as a university faculty man I had close friends in the medical school faculty. As a young newspaper man I knew many physicians, surgeons and internes in various hospitals. Some of my best friends—one a pal—are physicians. I married a trained nurse. As the father of three small children with the concurrent experience with measles, diphtheria, adenoids and other worries, don't you think I've shown pretty fair judgment in selecting physicians? Ever know of me picking a quack for medical services any more than I would pick a quack from whom to buy investment securities?"

"All right, all right—the first reason that we buy worthless securities is because we have not recognized that investment banking is a highly specialized calling, just as is medicine; let's have the optimism part of it."

"It's brief. There isn't a one of you who doesn't believe that next year's practice is going to be a lot more remunerative than this year's. Your first years of practice, when you started with nothing and gradually built up your income, taught you that. It's firmly fixed, perhaps subconsciously, in every doctor's mind. It's a life thought-habit of the profession, besides being a somewhat common human trait. Well, if things are going to be better next year, I'll just take a few

hundred dollars of the stock of this patent electrical device or in that new serum outfit, you argue. Thousands of little oil and mining companies have been organized in the last few years among little groups of friends in every town, city and hamlet in the United States and have blown up after losing the money put into them. I'll wager that in every such little venture 90 per cent of them have had one or more physicians as stockholders. As a profession, you are so confoundedly optimistic that you let your optimism run away with your better judgment, and you accumulate a lot of nondescript interests in a number of things you know nothing about and that have little or no value when your widow tries to realize on them."

"Yes, I guess some of that is possibly true," my friend admitted.

"True, of course it's true. Six months ago I had a little ready money and I asked you to send me your bill. I telephoned you twice. I got that bill last week, six months after I had put my little ready money into some sound investments, selected by an investment specialist and not by inexperienced friends or an easy-talking promoter. Now, when I'm shy of cash, you optimistically send me a bill. I'll bet you $4 you are going to buy a new car. You are careless about collections, partly because it is in the code of your profession not to be mean and grasping. I honor you for that, but your eternal optimism is also a part cause. Oh, I'll get more money next month, you say; if not from Jones, from Smith. And you base your investments on the same kind of careless optimism.

"I'm serious in this, Roy. You wouldn't have a bit of sympathy with me if I disregarded the common sense that the medical profession has patiently drummed into the public must consult reputable, competent medical advisors. You'd have a silent contempt for me if I let some quack or gaudy fake practice in my family or if I answered a cure-all medical advertisement. The so-called intelligent public has learned its lesson in medicine, that of consulting reputable practitioners. It is just as important that the medical public learn the same lesson as applied to investing of money. You nor no other physician can judge an investment security dependably, if you continue attending to your legitimate vocation. Even if you had time to do it, very frequently you haven't the facilities to determine the worth of a security. Investment banking is such a highly specialized calling that I doubt if any man has the ability to perform the investment banker's work without adequate training in the work. Physicians should be the first persons in the world to recognize this fact, but strange to say many of them do not. As a consequence, they are notably heavy losers in bad investments. And the cure for this bad investment condition is the same as in a human pathological condition—consult the reputable specialist who is competent to treat the case."

THE WEST VIRGINIA MEDICAL JOURNAL

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Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

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PHYSICIANS AS INVESTORS

Once or twice in the past few years some remarks have been made along this line in the Journal.

It is a question that is an important one. The statement is often made that physicians, ministers and school teachers are the poorest judges of the security of their investments of any classes of persons. Whether or not this charge of business incompetence is true, the fact does remain that the savings of too many physicians do go into "wildcat" investments which promise large returns.

Too many of us have had no experience in judging along these lines to be in position to pass upon the security of the investments we are asked to make. When we consider that there is no excuse for our making a bad investment of what we may be able to save from our hard earned dollars it becomes more or less of a shame upon our mental equipment.

We have but to call upon our bankers for advice if we would avoid the pit-falls prepared for our

financial feet. As one bank puts it on a little blotter which is enclosed in their correspondence with depositors and stock holders "when exchanging savings for stocks, take a banker along for a caperon."

A short article "why doctors buy worthless and fradulent securities" came to the Journal not long since. It is by Samuel O. Rice, Educational Director of the American Investment Bankers Association. The article is so trite that it is published on another page of this issue. It is hoped that it will be read and pondered upon.

SCIENTIFIC MEDICINE

The spirit of modern medicine is scientific; it seeks to be open-minded toward new truth, provided this can be rationally related to the great body of firmly established and organized knowledge about nature, life, and mind, about which all scientific men agree. Scientific medicine cannot accept ideas which are merely mystical, or imply unknown and unverifiable physical or chemical properties, or involve supernatural intervention, or are in other ways clearly fantastic or beyond the reach of any available demonstration or experiment. So also modern medicine refuses to be labeled with the name of any school or cult. It is committed to no "pathy;" it knows no panacea; it is prejudiced only in favor of conclusions drawn by soundly reasoned processes from exact and verified facts. It recognizes the intricacy of its problems; it realizes that only a beginning has been made; it does not hesitate to admit ignorance or to suspend judgment. Its constant aim is the discovery of truth and its application to human need. These ideas, it must be admitted, are the conscious principles of a relatively small number of the medical men of the world. But the modern scientific spirit is permeating the great body of practitioners who have in the past too much relied upon dogmatic diagnosis, rule-of-thumb, "shotgun" prescriptions, and a cheerful bedside manner. The personality and attitude of the physician toward his patients ought to be important sources of power and success but they should supplement rather than take the place of the scientific method and spirit. —Dr. George E. Vincent, Rockefeller Foundation Review.

LACK OF INTEREST

Repeatedly your attention has been called to an apathy on the part of the membership toward the Journal. Once a year there always flashes up a very marked interest in your publication—during and annual meeting—and it takes the form of great constructive thought. "What's the matter with the Journal?" "Why don't we have more reports from county societies?" "Why don't we have more state news?" "Why don't you publish a better lot of papers?"

Fine isn't it, Brothers!

Once in a "blue moon" some one will come to your editor and say, "The Journal is good, Jim, and we know it's the dickens trying to keep it advancing."

I wonder if the members ever for an instant stop to ask how we are going to fulfill the wishes of the complainers. Nine times out of ten they come from the localities where the local societies are not putting forth great efforts. Then again the reports of their meetings

are not made to the Editor. Postals and letters have been sent without number begging and pleading for reports of their activities. Only a sporadic reply is received.

Now about the papers. The last meeting at Beckley is a fair example. This issue of the Journal will exhaust all the papers, et cetera, turned over to us by Secretary Ashworth. It means that only about half of the men delivered their papers to him, and we have six more issues to get out before the next annual meeting.

The question is, Gentlemen, what are YOU going to do about it? We can not have addresses and news reports if you do not send them in. A few of the members and a few of the local societies help nobly. Then the kickers start a complaint, "Yes, they are trying to run the State Association and the Journal."

Will you not think this matter over and show some life? You are referred kindly, gently, but fimly, to the closing paragraph of the editorial anent "Delinquent Members" in the September issue of this year.

THE NEW COMPETITION

Many progressive manufacturers and merchants say that the cut price bait is losing its attraction. They are paying less attention to this method of getting more business, and more attention to the idea of quality merchandise service. They believe the results so far achieved justify the statement that their customers will be better served and their own profits enhanced by giving more attention to quality, and less to price.

Real service is what counts. While many people will shop about for prices, the great majority are better satisfied with quality merchandise and good service at a fair price. This makes for confidence —the cornerstone of satisfaction.

Mr. Charles Wesley Dunn, counsel for a number of large manufacturers in this country, has given this problem a great deal of thought. His conclusion is that we are now approaching the time when the real competition will be in merchandise and service rather than in price.

As a nation, we have developed to the highest degree the science of quantity production. Now, with characteristic American progression, it is only natural that we are experiencing a very definite trend toward the development of quality production.

We have endeavored to secure as advertisers only the very highest type of manufacturers and merchants. The members of our organization are urged to take this into consideration and consult with them before making purchases.

STATE AND GENERAL NEWS

Dr. Olin H. Jennings, Williamson has been appointed by Governor Morgan as a member of the West Virginia Health Council to succeed Dr. Benjamin F. Shuttleworth, Clarksburg, whose term has expired.

Addison K. Ross, Parkersburg, W. Va., College of Physicians and Surgeons, Baltimore, 1885, aged 70, died September 13.

The Board of Trustees of the American Medical Association has selected May 19-23, 1924, as the dates for the Chicago meeting of the Association.

Dr. and Mrs. O. J. Henderson and son, of Montgomery, W. Va., recently visited friends in Northumberland County, Virginia. Dr. Montgomery is an alumnus of the Medical College of Virginia and has many friends in this section.

The American Association of Obstetricians, Gynecologists and Abdominal Surgeons, at its annual meeting held in Philadelphia, in September, elected Dr. James F. Baldwin, Columbus, O., president, and Dr. James E. Davis, Detroit, secretary.

Dr. S. P. Walker and family, who have been visiting in New York for the past few weeks, have returned to their home in Huntington.

Dr. J. W. Ferguson, formerly physician for the Consolidation Coal Company of Jenkins, Ky., has moved to Huntington and will establish offices over Gray's drug store in Westmoreland. Dr. Ferguson is a native of Wayne but has been absent from West Virginia for a number of years. He is a graduate of the medical school of Ohio State University and has had hospital experience at the Protestant Hospital in Columbus.

Dr. Morris Ricker, representing the United States Public Health Service, was in Huntington recently delivering a series of lectures in connection with the extension work of the public health service. Dr. Ricker went from Huntington to Wheeling. He talked to the science classes at Marshall College and to the high school students.

Dr. W. E. Vest, of the staff of the C. & O. Hospital in Huntington, attended the Virginia Medical Meeting at Roanoke.

Dr. C. G. Willis has returned from his vacation spent in North Carolina.

Born, to Dr. and Mrs. F. E. Brammer of Huntington, a daughter, Ruth Anne, on October 15th.

The Cabell County Society had the honor to have addresses by Drs. J. M. Emmett, surgeon-in-charge of the Chesapeake and Ohio Hospital at Clifton Forge, Va., J. L. McKinney, Roentgenologist to the Lewis-Gale Hospital, and Wm. B. Porter, of the department of Internal Medicine of the Lewis-Gale Hospital, Roanoke, Va., at its meeting October 11th. This meeting was a most enthusiastic one and the attendance a record breaker. More than one hundred and twenty members and guests from Catlettsburg and Ashland, Ky., and Ironton and Portsmouth, Ohio, were present.

Drs. A. Murat Willis and Frank S. Johns of Richmond, Va., who have been associated in surgery for the past ten years, announce a formal partnership under the name of Drs. Willis and Johns.

On October 12th there was organized in the New York Academy of Medicine "The American Association for the Study and Cure of Cancer." There were over 60 enrolled from eighteen different States of the Union and some from outside countries, as charter members. Dr. L. Duncan Bulkley was elected President; Dr. Curtis Frank Classen of Brooklyn, Vice-President; Dr. A. Hirst Appel, Colonel in the Medical Corps, U. S. (retired), Secretary and Treasurer; with an Executive Committee of five. The next annual meeting will be held in Chicago, in May, during the meeting of the American Medical Association.

BOOK REVIEWS

Dreads and Besetting Fears—Including states of anxiety, by Tom A. Williams, M.B., C.M., Neurologist to Freedman's Hospital. Mind and Health Series. It has been estimated that one out of every ten persons is beset by a special fear of one kind or another. Fear is frequently the unsuspected cause of functional nervous troubles, and of peculiarities of behavior interfering with one's social relationships and the proper performance of one's daily work. Doctor Williams has much to say of value to both laymen and physicians. He shows how to analyze fear to its fundamental cause—usually some experience of childhood—and offers helpful suggestions to those who are already in the clutches of a fear obsession, and to those who would safeguard their children from a life haunted by dreads. Dr. Williams himself is an expert in the treatment of such cases, and has an international reputation. Few specialists in this country have had so extensive and varied a practice in the management of fear states as he; thus he writes from the wealth of his personal study and experience. In presenting his subject he has chosen the case method; that is, he emphasizes the various points he would bring out by descriptions of actual cases, and since he has a broad knowledge of life quite outside the limits of his consulting-room, he discusses the philosophy as well as the psychology of fear. His book is a contribution to the literature of character development no less than to preventive and curative medicine. 217 pages. 12mo. $1.75 at all booksellers. Little, Brown & Company, Publishers, Boston.

New and Nonofficial Remedies, 1923—Containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1923. Cloth. Price, postpaid, $1.50. Pp. 415+ XXXVI. Chicago: American Medical Association, 1923.

The progressive, up-to-date physician cannot dispense with the newer remedies, proprietary and nonproprietary. Yet he can neither select them on the basis of the manufacturers' claims alone, nor devote his patients to experiments while he tries out those claims.

New and Nonofficial Remedies is the publication of the Council on Pharmacy and Chemistry through which this body annually presents the American medical profession with disinterested, critical information about the proprietary medicines which are offered to the profession, and which the Council deems worthy of recognition. In addition to the descriptions of proprietary preparations, the book contains descriptions of those nonofficial remedies which the Council deems deserving of consideration by the profession.

A valuable feature of the book is the grouping of preparations in classes. Each of these is introduced by a general discussion of the group. Thus the silver preparations, the arsenic preparations, the animal organ preparations, the biologic products, etc., each is preceded by a general, thoroughly up-to-date discussion of the particular group. These general articles compare the value of the products included in the group with similiar pharmacopeial and other established drugs which it is proposed

that these proprietary preparations shall supplant.

A glance at the preface of this volume shows that the book has been extensively revised. In fact each edition of New and Nonofficial Remedies is essentially a newly written book, brought up to date by those who speak with authority on the various phases of therapeutics.

Physicians who wish to know why a given proprietary is not described in New and Nonofficial Remedies will find the References to Proprietary and Unofficial Articles not found in N. N. R. of much value. In this chapter (in the back of the book) are given references to published articles dealing with preparations which have not been accepted.

New and Nonofficial Remedies should be in the hands of all physicians who prescribe drugs. The book contains information about the newer materia medica which cannot be found in any other publication.

The book will be sent postpaid by the American Medical Association, 535 North Dearborn Street, Chicago, on receipt of one dollar and fifty cents.

Obstetrics for Nurses — By Charles B. Reed, M.D., Obstetrician to Wesley Memorial Hospital, Chicago. 399 pages with one hundred forty-four illustrations including two-color plates. Second edition 1923. Price $3.50. C. V. Mosby Company, St. Louis.

Those of us who have to do with the teaching of obstetrics to nurses have experienced difficulty in selecting a suitable text for classwork. In the past there has been a tendency to teach nurses too little during their student years, especially of the scientific part of their studies. This is changing, however. Physicians are realizing that in this particular field the nurse becomes an assistant and as such should be well grounded in the scientific practice of obstetrics if she is to perform her duties intelligently and well.

This book is one of the very best it has been our privilege to review. The text is clear on all points and while giving the data of the science of obstetrics, has remained extremely practical.

It can be heartily recommended to those of our members operating training schools in connection with their hospitals and to those lecturing upon this subject to nurses.

Principles of Bacteriology—By Arthur A. Eisenberg, A.B., M.D., Director of Laboratories St. Johns Hospital; Pathologist to Lakewood Hospital; Serologist to St. Anns' Hospital, Cleveland, Ohio; Director of Laboratories, Mercy Hospital, Canton, Ohio; Member Society of American Bacteriologists. Second Edition. C. Z. Mosby Company, St. Louis. 1923. Price $2.25.

A Text Book of Chemistry for Nurses—By Fredus N. Peters, A.M., M.D., author of "Experimental Chemistry," "Laboratory Experiments," "Applied Chemistry," etc. Former Professor of Chemistry and Director of Laboratories, Kansas City College of Pharmacy; Professor Organic Chemistry, Halneman Medical College; Director of Laboratories and Professor of Chemistry and Metallurgy, Kansas City Dental College; Instructor in Chemistry in Kansas City Central High School for 23 years; more recently Vice-President. Illustrated. Sec-

ond Edition. St. Louis. C. V. Mosby Company. 1923. Price $2.50.

A Clinical Guide to Bedside Examinations — By Dr. H. Elias, Dozent and Assistant to the First Medical Clinic of University of Vienna, Austria; Dr. N. Jagic, Extraordinary Professor and Chief Physician to the Sofienspital, Vienna, Austria; Dr. A. Luger, Dozent and Assistant to the Second Medical Clinic of the University of Vienna, Austria. Arranged and translated by Wm. A. Brams, M.D., Chicago, Ill. Adjunct in Medicine, Michael Reese Hospital, Formerly Lieutenant Commander, Medical Corps, United States Navy. New York. Rebman Company. Price $1.50.

General Medicine—Of the Practical Medicine Series, comprising eight volumes on the year's progress in Medicine and Surgery. Under the General Editorial Charge of Charles L. Mix, A. M., M. D. Vol. 1, General Medicine, edited by George H. Weaver, M. D., et al. Series 1923, price not stated, illustrated, pp. 678. Chicago, the Year Book Publishers, 1923.

PROPAGANDA FOR REFORM

Two More Electronic Diagnoses. —A physician reports that one of his patients became alarmed by a diagnosis of generalized carcinoma made by an osteopath who is a disciple of Albert Abrams. In order to test the diagnostic ability of this disciple of Abrams the physician had the patient send the Abrams disciple a specimen of blood (which was taken from a young rooster who had been confined to his coop since birth) for diagnosis. The diagnosis which was received showed syphilis, gonorrhea, generalized carcinoma, sarcoma of the spine, chronic malaria and diabetes. Another physician reports a diagnosis made by an Abrams follower on a man who is working and by no means ready to die. The diagnosis showed "diminished resistence" (an Abrams euphenism for syphilis), "carcinoma of gall bladder," "streptococcus," "sarcoma of both kidneys, right worse," "tuberculosis both lungs, upper right and middle left," "sarcoma," "gallstones," "malaria" and "pneumonia." (Jour. A. M. A., Aug. 11, 1923, p. 493.)

Bacillus Acidophilus Therapy.— A method for the preparation of Bacillus acidophilus milk has been published by Rettger and Cheplin (Arch. Int. Med. Vol. 29:357, (March 1922). Microscopically, Bacillus acidophilus closely resembles the Bacillus bulgaricus, but cultural methods of distinction have been proposed. The therapeutic value of the various lactic acid ferment preparations is discussed in New and Nonofficial Remedies, 1923. While recent publications give evidence in favor of Bacillus acidophilus therapy, W. H. Morriss expresses the belief that whatever beneficial results occurred in the cases reported by him were due to some other factor than the actual transformation of the common intestinal bacteria into the acidophilus type of organism. (Jour. A. M. A., Aug. 11, 1923, p. 494.)

Tapeworm Remedies.—Oleoresin of aspidium and pelletierin tannate are the remedies of choice, the first being more popular. To give the remedies the best chance for action, the intestinal contents should be reduced as much as possible by restriction of solid food and evacu-

ation before the treatment. On the morning of the treatment the patient should stay in bed and be given from 6 to 8 gm. of oleoresin of aspidium divided into as many capsules in the course of 10 to 15 minutes. Two hours later a saline cathartic should be administered and repeated every two hours until thorough evacuation has been secured. (Jour. A. M. A., Aug. 11, 1923, p. 495.)

The Chlorin Antiseptics.—The essential attributes of Surgical Solution of Chlorinated Soda—N. N. R. is a definite but mild alkalinity, hypertonicity and presence of the correct amount of sodium hypochlorite. Because hypochlorite solutions are unstable and their active component is not available in solid form, chloramin-T, dichloramin-T and halazone were evolved. The first two have been received as worth while additions to our materia medica. Because the three products contain their chlorin in its less stable modification, the composition and purity of these products have been watched by the A. M. A. Chemical Laboratory. Recently, P. N. Leech of this laboratory reported on the quality of the market supply of American-made chloramin-T, dichloramin-T and halazone, which are described in New and Nonofficial Remedies. Out of eight specimens of chloramin-T, one was considerably substandard, two were slightly substandard and five were satisfactory. The chloramin-T tablets, chloramin-T pastes and an aromatic powder were satisfactory. Two out of four specimens of a surgical powder were markedly decomposed. All the specimens of Council-accepted dichloramin-T complied with the standards. Re-examination of specimens of the chloramin examined five years previously showed that chloramin-T and halazone are quite stable, but the dichloramin-T specimens had decomposed somewhat. Leech believes that both the hypochlorite preparations and the chloramins are active oxidizing agents because of the positively charged chlorin atom which they contain, and that their antiseptic action depends on this. He determined that the oxidizing power of chloramin-T is much greater in neutral than in even slightly alkalin solutions. From this it is apparent that one strength of a solution of pure chloramin-T may be active as a germicide while a solution of the same strength containing sodium bicarbonate may be ineffective. (Jour. A. M. A., Aug. 18, 1923, p. 581.)

Iodin as a Prophylactic for Goiter.—The conclusion of Marine and Kimball that the administration of iodin constitutes an efficient and safe method of preventing goiter is being amply confirmed. In Switzerland the results appear even more favorable than those reported in this country and the goitre commission of Switzerland has recommended that this method of goiter prevention be instituted as a public health measure throughout the republic. In this country the schools of Akron, Kent and Revana counties, in Ohio, have been using the method as a routine. It has been employed in Berea and Warren, Ohio, and extensively administered in some of the large factories in Cleveland. This year the schools in East Cleveland, Shaker Heights, Warren, Niles and Findlay, Ohio, Grand Rapids, Mich., and Hammond, Ind., are using tablets, each

containing 10 mg. of iodin in the form of on organic iodid and each girl takes one tablet a week throughout the year. (Jour. A. M. A., Aug. 18, 1923, p. 582.)

Administration of Iodid for Goiter.—For the prophylaxis of goiter, Marine and Kimble employed 2 gm. of sodium iodid given in 0.2 gm. doses daily for ten consecutive school days. This was repeated twice yearly. Marine and Kimball state that this amount of iodid is excessive and that 1 gm. of sodium iodid distributed over a longer period would be better. Sodium iodid may be prescribed in solution, a dose to a teaspoonful. If the patient be furnished with a small quantity of potassium iodid—say 1 gm.—and advised to mix it thoroughly with 1 kg. of ordinary table salt for occasional seasoning of his food at the table, he will get all the iodid that is necessary for prophylactic purposes and in an entirely unobjectionable manner. (Jour. A. M. A., Aug. 18, 1923, p. 598.)

Bismuth Preparations in Syphilis.—The Council has issued a statement of the present status of bismuth preparations in the treatment of syphilis. In this report the history of the use of bismuth salts in the treatment of syphilis is reviewed, the evidence for the value of bismuth salts as compared with mercury preparations and arsphenamine is considered and the dosage and danger of untoward effects are discussed. The statement of the Council concludes with the following summary:

1. Bismuth preparations have a sufficient experimental basis both for their favorable effects and limitations. The advantage consists in their distinct action on experimental syphilis. The limitations are clear, if one considers the disproportion between the large dose, which can be tolerated by man. The available information appears to show that bismuth preparations will not cure syphilis, when used alone.

2. Bismuth treatment is not usually injurious if the necessary precautions (observations for beginning stomatitis, examination of urine etc.) are observed. Intravenous injection is to be strictly avoided. The therapeutic effect of bismuth is rated by the majority of authors between arsphenamine and mercury. Bismuth compounds may be available in cases in which the patients are intolerant to the other drugs used in the treatment of syphilis or resistant to them, as shown by a persistent positive Wassermann reaction. (Jour. A. M. A., Aug. 25, 1923, p. 661.)

The Thyroid Hormone.—The fact that the iodin-bearing compound, thyroxin, which has been isolated from thyroid tissue, has a marked physilogic potency has led many persons to speak of it off-hand as the "active principle" of the thyroid glands. However, Reid Hunt has carried out tests which indicated that for certain functions at least, thyroxin shows less potency than an equivalent dose of iodin in the form of the entire thyroid gland. One is led to ask, whether the iodized protein fragment represented by thyroxin retains all of the specific physiologic action of the real thyroid hormone. Hektoen, Carlson and Schulhof report that they have detected the presence of a thyroid product, thyroglobulin, in the lymph issuing from the thyroid gland, but failed to detect the same protein in the blood stream. (Jour.

A. M. A., Aug. 25, 1923, p. 665)

Albargin Not Accepted for N. N. R.—The Council on Pharmacy and Chemistry declares Albargin inadmissible to New and Nonofficial Remedies because (1) it is an unessential modification of silver nitrate and (2) the therapeutic claims made for it are unwarranted. Albargin is a product of the Farbwerke, vorm. Meister, Lucius and Bruening, Hoechst, a. M., Germany, marketed in the United States by the H. A. Metz Laboratories, New York. It is claimed to be a compound of silver nitrate with gelatose containing 15 per cent. of silver. Albargin is claimed to combine the advantages of albumin compounds of silver and of silver nitrate. It is claimed to dialyze through animal membrane and, therefore, to possess far greater power than other albumin compounds of silver. It is claimed to produce neither irritation nor pain. The Council found that the silver of Albargin was not combined with the gelatose, but is in the same condition as the silver of silver nitrate; that it does not dialyze through animal membrane and that its antiseptic value is the same as that of a silver nitrate solution of equal silver content. (Jour. A. M. A., Aug. 25, 1923, p. 677.)

Coating for Pills to Resist Gastric Juice.—The attempt to prepare pills, tablets or capsules which will pass the stomach unchanged but which will disintegrate in the intestine has not proved very successful. In the main the attempt has been to coat such pills, tablets or capsules (a) with keratin or phenyl salicylate (salol), (b) with gelatin rendered insoluble by treatment with formaldehyd, and (c) by mixing the drug with wax, solid fats or paraffin. Keratin coating has been reported unsatisfactory by the A. M. A., Chemical Laboratory. Coating with phenyl salicylate has the objection that the coating is brittle and that it requires the administration of a considerable dose of phenyl salicylate. The difficulty in the coating with hardened gelatin is that, if the treatment with formaldyhyd is insufficient, the pills will not pass the stomach unchanged and, if the treatment is prolonged, the coating will not disintegrate in the intestin. Favorable reports have been published of the method of combining drugs such as sodium carbonate, potassium iodid, sodium salicylate, etc., with mutton suet and paraffin or with a mixture of bees wax and castor oil previously melted together. (Jour. A. M. A., Aug. 25, 1923, p. 679.)

PROPAGANDA FOR REFORM

Administration of Insulin.—The present methods of administering insulin parenterally are far from satisfactory. Consequently, the earliest investigators of insulin and other pancreatic preparations attempted to secure physiologic effects by oral administration. There is evidence that slight effects may be obtained when insulin or other pancreatic preparations are introduced into the organism by way of the mouth under certain conditions. On the whole, however, the oral administration of insulin has proven quite inefficient. Rectal administration and nasal insufflation have been tried without success. A recent study showed that pancreatic extracts taken in capsule form by the stomach was not effective in decreasing blood sugar or urinary

sugar. It is desirable to give wide publicity to the current limitations of a most promising therapy, since unscrupulous venders are already attempting to distribute just-as-good pancreatic or antidiabetic preparations that are recommended for oral use. (Jour. A. M. A., Sept. 1, 1923, p. 752.)

El Zair. — This is quackery's latest offer of an elixir of life. The nostrum is brought to the attention of the public by El Zair, Inc., New York. The firm claims that the elixir of youth has at last been found. Much is made of the endorsement which the late W. T. Stead is stated to have given the nostrum. El Zair is to be dissolved in water and applied by sponging the body with it daily. The A. M. A. Chemical Laboratory analyzed El Zair and reported that essentially it may be considered to consist of one part of glacial acetic acid and three parts of magnesium sulphate (Epsom salt) perfumed with oil of bergamot. The contents of a bottle of El Zair are to be dissolved in a pint of water and, therefore, an essentially similar solution can be made by dissolving 2 1-2 ounces of Epsom salt in a pint of distilled vinegar. (Jour. A. M. A., Sept. 1, 1923, p. 768.)

Lactic Acid-Producing Organisms and Preparations.—The Council on Pharmacy and Chemistry reports on the present status of sour milk therapy. During recent years reports have been published which indicate that the growth in the intestine of the normally present Bacillus acidophilus may be increased so as to make this the predominating organism, by the administration of lactose, by milk fermented with Bacillus acidophilus, or by the administration of viable cultures of Bacillus acidophilus in conjunction with lactose. Growing out of the claims of favorable therapeutic action, the use of so-called Bacillus acidophilus milk and other products prepared with B. acidophilus has become quite widespread. While no one subscribes today to the original theories of Metchnikoff, there are many who believe that the regulation of the bacterial flora is of importance. There is evidence that the administration of sour milk is at times beneficial, particularly in pediatrics. A wide clinical observation indicates that for certain types of gastric and intestinal disturbances, fermented milk accomplishes more than unfermented milk. (Jour. A. M. A., Sept. 8, 1923, p. 831.)

Calcium Chlorid in Hay Fever.—Calcium chlorid seems to be of some use in the treatment of hay fever, but is must be taken in rather large doses during the whole season to be of much benefit—about 1 gm., from four to six times a day. The use of this drug in hay fever is chiefly based on the work of European investigators who have shown that the permeability of the mucous membranes and of the capillaries is decreased by the internal application of calcium chlorid. The treatment is entirely symptomatic, and no permanent relief must be expected. (Jour. A. M. A., Sept. 8, 1923, p. 850.)

Accidents with Local Anaesthetics —The chairman of the committee for the study of toxic effects of local anesthetics, appointed by the Therapeutic Research Committee of the Council on Pharmacy and Chemistry, publishes a preliminary report. The committee has received reports of forty-two deaths following the

use of local anesthetics occuring within the last few years. These accidents have not been reported on by former committees of the Association. The deaths reported are:

Anesthetic	No.
Stovain	1
Alypin	1
Procain	3
Apothesin	4
Butyn	4
Butyn and cocain	1
Procain and cocain	10
Cocain	18
Total	42

Under the headings Procain, and Procain and Cocain, novocain is included; one is reported as procain and the other twelve as novocain. As the five deaths following the use of butyn are the first reported, the committee is very desirous of receiving fufll details of other fatalities for comparison of relative toxity. These reports should be sent to the chairman of the committee, Emil **Mayer, M. D.**, 40 East Forty-First Street, New York City. (Jour. A. M. A., Sept 15, 1923, p. 947.)

Some More Miscellaneous Nostrums. — The following products have been the subject of prosecution by the federal authorities charged with the enforcement of the Food and Drug Act; Cowan's Rheumatism Herb (Rheumatism Herb Co.,) consisting of dried and moldy leaves of a species of eucalyptus. Jad Salts (Wyeth Chemical Co. Detroit--not John Wyeth Bros., Philadelphia,) consisting essentially of citric and tartaric acids, salt, baking soda, sodium phosphate and very small amounts of hexamethylenamin, lithium carbonate and potassium bicarbonate. Crane's Quinin and Tar Compound (Crane Medicine Co., consisting essentially of quinin, sodium salicylate, ammonium chlorid, Epsom salts, oil of anise, tar, menthol, table salt, calcium phosphate, sugar, alcohol and water. Crane's Liver Pills (Crane Medicine Co.,) consisting essentially of aloes and magnesium carbonate. Crane's Kidney Pills (Crane Medicine Co.,) containing methylene blue, hexamethylenamin, plant extractive and iron sulphate. Tekol (Colonial Tablet Co.,) containing ground celery seed and cocoa with about a half grain of caffein in each tablet. Veronica Water (Veronica Medicinal Springs Water Co.,) containing magnesium sulphate (Epsom salt,) sodium nitrate, sodium chlorid (common salt) calcium bicarbonate, calcium sulphate and magnesium chlorid. Jour. A. M. A., Sept. 15, 1923, p. 946.)

So-called "Improved" Ethers.— In 1919, Cotton declared that ethyl ether specially purified was not a good anesthetic ,and that real anesthesia could not be obtained unless ether contained some potent synergist. He proposed the use of Cotton Process ether which was stated to be ether containing ethylene, carbon dioxid and ethyl alcohol. The manufacturer submitted Cotton Process Ether to the Council on Pharmacy and Chemistry, but so far confirmation of Cotton's claims is lacking. Wallis and Hewer of England have also recommended a new general anesthetic with the claim that pure ether possesses practically no anesthetic properties, and that their product contains a mixture, in unspecified amounts, of ketones (identified only in vague terms) which have been treated previously with carbon dioxid and ethylene. This product has been placed on

the market as "Ethanesal." It has received some endorsement, especially from Dr. H. E. G. Boyle of London, who made it the subject of addresses on anethesia in this country. In contradiction of the claims made for Cotton Process Ether and "Ethanesal," Bourne and Stehle showed that ether prepared in a way to exclude impurities possesses the usual anesthetic properties. A painstaking investigation recently reported by Dale, Hatfield and King confirms the generally accepted belief that the anesthetic action of ether is due to the ether itself. They also report their examination of "Ethanesal." They found "Ethanesal" to contain 95.5 per cent. ether, 4 per cent. normal butyl alcohol, and 0.5 per cent, of a mixture of ethyl alcohol and an aldehyd and possibly traces of other substances. The investigation shows that there is no evidence to warrant attributing the anesthetic action of "Ethanesal" to any other constituent than the ether. On the contrary, the work shows that the anesthetic action of ether is improved by purification. (Jour. A. M. A., Sept. 22, 1923, p. 1040.)

Ethanesal.—In 1921, Dr. H. E. G. Boyle of London read a paper before the Section on Miscellaneous Topics at the annual meeting of the American Medical Association. The paper dealt, in part, with so-called improved ether—"Ethanesal." The paper was not published in the Journal A. M. A., on the ground that The Journal does not publish articles on new remedies until those products have been reported on favorably by the Council on Pharmacy and Chemistry. The investigation of "Ethanesal" by Dale, Hadfield and King which makes plain the fallacy of the claims for the product, demonstrates again the advantage to the medical profession of a competent judicial body—the Council on Pharmacy and Chemistry —to investigate new additions to our materia medica. (Jour. A. M. A., Sept. 23, 1923, p. 1025.)

The Nature of Insulin. The manufacture of insulin from the pancreas is a costly and laborious undertaking. Therefore, the artificial systhesis is important. Before the prospect of a systhesis can be entertained, however, the chemical structure must be ascertained. Evidence is developing that insulin is protein in nature. Consequently the hope of its isolation as a chemically pure substance becomes slender. (Jour. A. M. A., Sept. 29, 1923, p. 1117.)

MEDICINE AND SURGERY

Dr. James W. Sherrill, writing in The Journal of Metabolic Research, on the Influence of Carbohydrate and Protein on Diabetes and the Insulin Requirement, confirms the existing opinion that each diabetic is an individual problem and should be carefully studied. He presents valuable data on the relative glycosuric influence of carbohydrate and protein. We quote his

Conclusions:

1. Carbohydrate has a stronger glycosuric effect and creates a higher insulin requirement than the caloric equivalent of any other kind of food.

2. Protein ranks below preformed carbohydrate in respect to glycosuric effect and insulin requirement when the substitution is made of a basis of equal caloric value or

theoretical glucose content. Though hypoglycemia may be prevented by sufficiently large quantities of protein, this influence is surprisingly feeble and by no means in proportion to the theoretical glucose value.

3. Assumptions of a specially powerful glycosuric influence of protein, on the ground either of its specific dynamic or a supposed toxic action, are thus proved to be contrary to fact.

4. There is no constant scale of insulin dosage for the assimilation of any given quantity of carbohydrate. The ratio between grams of glucose and units of insulin varies widely not only in different patients but also in the same patient under different conditions.

5. Glycosuria and insulin requirement are governed to a very important degree by the total caloric value of the diet.—W. E. V.

SUCCESSFUL IMMUNIZING AGAINST CANCER

Journal Radiology, Sept. 1923 issue, contains an interesting review by Louis K. Poyntz, University of Oregon. Poyntz carefully reviews and weighs the opinions and animal experimental evidence of laboratory workers and clinical observers on cancer immunization. Finally leading up to the work of Sydney Russ and other experiments conducted at the Cancer Research Laboratories, Middlesex Hospital, London. In May 1920 Russ, Kellock and Chambers extended the investigation to the treatment of patients at the Middlesex Hospital and found that the same principles were applicable.

That it was found possible to inject carcinomatous tissue which had been removed surgically and after giving twice the lethal dose transplanted into the rectus muscle without producing a new growth at the site of injection and it was also found that resolution of the malignancy occurred.

At present time the technique and the amount of tumor used is very indefinitely described. The paper by Poyntz was written more in the form of a message to the North West Radiological Society and to arouse the interest of Radiologists generally to the method and encourage additional study by competent men in the field of Radiology. So that more complete observations and larger number of records might be obtained to decide on the merits of the procedure. —A. R. MacKenzie.

PUBLIC HEALTH SERVICE WARNS AGAINST POISON IVY AND POISON OAK

Vacationists who carried their radio receiving sets with them on their jaunts this summer are not suffering from the want of advice on health. Thirty broadcasting stations in addition to NAA Naval Radio Station, Arlington, have been releasing health hints for vacationists furnished by the Bureau of the United States Public Health Service at Washington. The most recent of these broadcasts on the subject of poison ivy is especially timely since every summer brings its toll of suffering from this cause.

The poison ivy is perhaps the plant most frequently encountered by the unsuspecting city visitor to the country, says the Public Health Service. Yet it may be easily distinguished from other creepers by its three divided leaves. The harmless creepers have five leaves. This

one distinguishing mark if borne in mind will protect the vacationist from poison ivy. Poison oak is a shrub or small tree with broad leaves very much resembling the leaves of the oak tree.

The part of these plants to be feared is the resinous sap. When a plant is injured this sticky sap exudes. It comes in contact with the skin and sets up an irritation which is distinguished by its acute character. This irritation frequently begins between the fingers.

The symptoms of ivy poisoning are comparatively easy to recognize. A more or less mild attack may be ushered in by a burning or iching of the skin. Within twenty-four hours after the skin is exposed to the poison of the plant, a red rash appears. This is followed by more or less swelling and itching, then small blisters filled with serum make their appearance. The parts of the body affected may swell to enormous proportions.

At one time it was believed that many persons who had suffered from attacks of ivy poisoning would experience a recurrence of the attack if they passed through a wood or came into proximity with the plant even though the ivy itself was not touched. It now appears certain however that contact is necessary in order to produce ivy poisoning.

Ivy poisoning, says the Public Health Service, may sometimes be averted even after these plants have been handled provided the parts exposed are washed thoroughly with soap, water, and alcohol. This washing must, however, be thorough, otherwise it will only tend to spread the irritating poison.

The treatment of ivy poisoning is simple and easily administered. One of the best treatments is bathing with salt water. Sea water is best if it is available. Another good application consists of one tespoonful of boric acid in a quart of hot water. The affected parts should be bathed with warm water every day or every two days and carefully dried without rubbing. Bathing should be followed by another application of boric acid. The attack may subside in from four to six days. The best advice to vacationists is, study the poison oak, the poison ivy and the poison sumac that you may distinguish these plants from their neighbors. Once you are able to recognize them you can scrupulously avoid them. Avoid the creeper with the three divided leaves. Avoid the small shrub with the broad leaves like the oak. Give the sumac that grows in swampy places a wide berth. Persons who have suffered from plant poisoning do not soon forget their experience.

OPENING THE PERITONEUM IN OPERATIONS FOR EMPYEMA

In a study made by Howard L. Beye, Iowa City (Journal A. M. A., April 21, 1923), of a series of cases of empyema in which drainage had been performed at varying periods after the onset of the condition, and in which the cavities did not heal, it was determined that one of the commonest causes for failure to obtain a cure was that drainage had not been instituted at a dependent portion of the cavity. In such cases a residium of purulent exudate remains below the level of the drainage opening, no matter what position the patient assumes. An empyema cavity thus inadequately drained tends to be maintained not only

because of the accumulated pus, but also because of the continuation of the infection of the pleura. The resultant cavity is therefore usually much larger than can be accounted for merely by the amount of exudate which collects at the bottom of the cavity below the level of the drainage opening. Acutely ill patients, in whom drainage has been performed through an opening improperly placed, may eventually recover, but the period of invalidism is greatly prolonged. The establishment of dependent drainage of an empyema which has been improperly drained at a previous operation will be followed by a cure in the majority of cases. This is true even though the condition has been existent over a long period of time. Even an associated bronchial fistula will usually heal spontaneously as the empyema cavity drains, and becomes obliterated. In very large chronic cavities it is often best to drain at two dependent points, so that there will be no stagnation of purulent exudate no matter what position the patient may assume. When the empyema rests on the diaphragm, there is a certain danger of opening the peritoneal cavity either through or below the diaphragm. Localization of the pus by the aspirating needle at the beginning of the operation and again after resecting a rib before incising into the empyema will obviate the danger of opening the peritoneum.

DIETARY CONSIDERATIONS IN INFANTILE ECZEMA

Little has been written of prophylactic treatment. Believing in the essentially dermatologic origin of eczema, Jesse R. Gerstley, Chicago (Journal A. M. A., April 21, 1923), has attempted to bring the skin of the predisposed fair-haired, blue-eyed children to the best possible state of nutrition. If the skin of an infant is maintained in good nutrition from the time of birth, and at the same time protected from irritants, eczemas rarely appear. The active dietetic treatment, from the standpoint of pediatricians, is that which most rapidly brings the child to the best possible state of nutrition. No one particular diet helps; no one diet harms. The main consideration of the pediatrician is to place the welfare of the whole body above that of an individual organ. If he steadfastly adheres to this principle, local symptoms gradually disappear in proportion to improvement in the general condition. Indications for restriction of diet are only two. In an overfed baby with an oozing eczema, reduction of food intake is of value. In an infant whose eczema has become secondarily infected, reduction of diet, by depleting the tissues of fluid, dries the cheeks and leaves a field less fertile for bacterial growth. In these cases there is no particular reason for reducing one element of food. Restriction of quantity is all that is necessary.

PROTEIN AND PELLAGRA

M. Hindhede, Copenhagen, Denmark (Journal A. M. A., June 9, 1923), disagrees with Goldberger and Tanner as to the role of diet in the prevention and causation of pellagra. By experiment, he found that the protein minimum for a grown-up man is about 20 gm. of digestible potato protein. The test subjects found that this diet agreed very well with them. But a condition is that the water in which the

potatoes are boiled and which contains important substances (salt and vitamins) be ingested as well. Therefore, the potatoes ought to be peeled before they are boiled, out of regard to cleanliness. The protein minimum from bread food is about 20 gm. In other words, protein in potatoes, bread, meat and milk has the same biologic value. Barley groats form an excellent article of food, which, unlike peeled rice and sieved oatmeal, contains sufficient vitamins. Fat is not necessary. Vegetables can replace it. Hindhede is most inclined to think that the question of pellagra is not a question of protein but of vitamin. Pellagra rises in the springtime, when there are virtually no fresh vegetables, and decreases in the course of the summer, when there are plenty of vegetables and fruits at disposal. In the garden settlement Eden, at Oranienburg, 20 miles north of Berlin, the people are nearly all vegetarians. Throughout the war they had sufficient nourishment. The state of health was perfect. The mortality of children under 1 year of age is one fourth that of the neighboring villages, and in twenty-eight years not one school child has died. If the theory of the necessity of plentiful animal protein was right, it would look bad for these Eden families, with absence of meat and insignificant consumption of eggs. Several families use practically no milk. The food lacks animal protein, but it does not lack vitamins. Whole bread is eaten and there are plenty of fruits, vegetables and potatoes. Hindhede says no one ought to be permitted to appear as a food expert until he has experimented on himself for a long time. This is the only thing that will cause dogmas to fall. But it is not enough to try to live as a vegetarian. It will not do to eat too much food made of flour, white bread and sugar. Another point is to refrain from eating until one is really hungry, and to stop "when the food has the best taste." Although one can easily live on a purely vegetable diet, it can hardly be proved that a small consumption of meat does any harm. Hindhede considers milk a good article of food, but does not believe it is necessary for adults. The central powers are starving only because the people demand too many animal productions. They believe in the necessity of a greater use of these products and are supported by the scientists. For that reason it is an absolute necessity for Europe that the population begin to realize that science has here committed a fatal mistake. The experiences of Denmark during the rationing showed how easy it is to procure nourishment enough if people only limit sufficiently animal production.

PENETRATIVE POWERS OF ARSENICALS

The probable reason why the chances for the complete cure of a generalized syphilitic infection are poor, says the U. S. Public Health Service, is because the usual remedies (arsphenamine, neoarsphenamine, and silver arsphenamine) all lack the power necessary to enable them to penetrate the infected tissues in sufficient amounts to destroy the last remaining parasites. Other arsenicals, sulpharshenamine, tryparsamid, and 3-amino-4-oxy-phenol arsonic acid, have superior pen-

etrative powers and their use as remedies is suggested.

The report was made by Carl Voegtlin, M. I. Smith, Helen Dyer, and I. W. Thompson, all of the U. S. Public Health Service, after prolonged experimentation, both chemical and bacteriological, on rabbits. While the authors admit that results so obtained cannot be transferred, without reservation, to the treatment of human syphilis, they nevertheless advance several reasons that cause them to believe that a clinical trial of the more penetrative preparations named is strongly indicated.

In conclusion they express, as Ehrlich did, their belief that no matter what arsenical may be used better results will be obtained from single large doses a week apart than from smaller doses given at shorter intervals.

A SUMMARY OF OUR KNOWLEDGE OF RICKETS

Following the close of the war, information began to reach London that rickets was extremely prevalent in Vienna as a result of deficiency in diet. The Medical Research Council, which had been carrying on special investigations of this disease, appointed a committee to carry on investigations in Vienna jointly with the Accessory Food Products Committee. As is pointed out in the report just issued, the problem of the cause of rickets is approaching solution. In his foreword to the present report, Professor Pirquet states that he himself believed that rickets was of an infectious origin, but following their three years of conscientious work, he now has been convinced that the disease is definitely associated with a diet poor in fat soluble vitamins and with the absence of sunlight. The British workers, he says, succeeded with the accuracy of a laboratory experiment in maintaining a large number of artificially fed babies free from the disease, and, further, were invariably successful in healing children with rickets already developed. This extensive clinical investigation completes the final establishment of views regarding the cause and therapy of rickets which mark an epoch in the control of this disease.—Jour. A. M. A.

EPINEPHRIN AND THE REVIVAL OF THE HEART

The widespread interest with reference to the use of epinephrin as a life-saving drug, because of its apparent power to revivify the human heart under certain untoward conditions, is a natural consequence of some of the publicity that the subject has received. There is something uniquely dramatic in the response of a heart, which has apparently ceased its action, under unexpected circumstances. It presents the possibility of successful restoration of life when death seems already to have been ushered in. Thus, the fear of the end may become replaced by the hope of survival in many instances in which untoward conditions presage the interruption of life through failure of the circulation. The outstanding facts in regard to what has actually been accomplished in an experimental way and has been reported from clinical sources were reviewed in a recent issue of The Journal (The Intracardiac Injection of Epinephrin, editorial, J. A. M. A. 80: 1314, May 5, 1923). They stress the long known observation that a

heart which has ceased to beat may often be revived by the injection of epinephrin; and when this is done with the circulation still intact, a renewal of the flow of blood may ensue, with consequent restitution of tissue functions.

In almost all of the discussions on this subject, certain aspects of fundamental importance seem to have been overlooked or forgotten. It is one thing to promote restoration of contraction in a quiescent cardiac muscle, and quite another problem to secure restitution of function in the organism as a whole —even when the entire circulation and the respiratory activities are satisfactorily established. The foremost reason for this seeming contradiction lies in the now well established consequences of lack of circulation in different organs and tissues. All of them are sure to suffer severely sooner or later from the anoxemia due to an interrupted circulation. Some structures, however, are damaged far more easily than others in this respect. Above all is the high susceptibility of the nervous tissues to permanent damage as a result of even temporary deprivation of oxygen.—Jour. A. M. A.

Results of an extensive investigation into infant mortality and its causes in Baltimore, Maryland, have just been made public by the U. S. Department of Labor through the Childrens Bureau.

A summary of the findings of the Baltimore report is as follows:

The mortality in the entire group of 10,797 legitimate births studied was approximately the same as the infant mortality in the cities of the United States birth-registration area for the same year.

Mortality rates markedly above the average for the entire Baltimore group occurred among the colored families, foreign-born Polish families, and the very poor native white families.

Low mortality rates—approximating those in New Zealand, which has the lowest in the world —were found among the babies of foreign-born Jewish mothers and in families of the highest earnings groups.

Breast-fed babies in every group of the population had lower mortality than artificially-fed babies in the same group.

New evidence is afforded by the Baltimore study that poverty is an important factor in infant mortality. Eliminating differences in color and nationality and considering only the babies born to native white mothers, the facts showed that infant mortality rose as the fathers' wages fell: In the poorest families studied about one baby in six died within the year; in the most prosperous families about one baby in twenty-six died within the year.

Employment of the mother away from home during pregnancy (which was chiefly factory work) was accompanied by a high percentage of premature births and high infant mortality, especially from the causes peculiar to early infancy. Employment of mothers away from home during the first year of their babies' lives also markedly increased the hazard to the baby. Room congestion and lack of sanitary equipment in the house were accompanied by death rates above the average.

First-born babies had a mortality

higher than second or third babies, but among the later orders of birth the mortality rose steadily.

Babies of mothers under twenty and of mothers of thirty-five years or older show higher mortality rates than other infants.

Births following a preceding birth by an interval of less than two years had a higher mortality than births occurring after a longer interval.

The babies born to the 105 mothers who died within the year following the babies' births had the highest mortality in the entire group. When the mothers died within two months after the babies' birth, the infant mortality rate became six times as high as the rate for babies whose mothers lived.

EMPIRICISM AND SCIENCE IN MEDICINE

Progress in medicine during recent years has been due in large measure to the efforts of two somewhat distinct groups of workers. One of these includes the clinicians, whose primary interest centers in the care and treatment of the sick. The other group is represented by the so-called laboratory workers—persons engaged in the study of the disciplines fundamental to medicine and sometimes inaptly termed preclinical sciences. In his address as chairman of the Section on Pathology and Physiology at the San Francisco session, Luckhardt[4] lamented the fact that the efforts of these two groups have rarely been concerted. No one can review the history of modern medicine without gaining the conviction that both types of workers have promoted its practice; and it requires no large perspicacity to discern that all of them are important in the advancement of the profession. Hence it was a timely note sounded by Luckhardt when he insisted that the mutual understanding, so prevalent among even the best representatives of both groups, is due to profound ignorance of each other's work. As a rule, he says, the laboratory man has never had an occasion to observe with what care and scientific acumen the good clinician gathers and weighs his data before instituting a rational and effective therapy. The clinician, on the other hand, rarely is in a position to observe and appreciate the resource, patience and pertinacity required of the laboratory man in order to solve a research problem the results of which are subsequently so readily susceptible of practical application.

An illustration of the effect of this reciprocal derogatory attitude appears in the history of cod liver oil as a remedy, recently reviewed by Guy,[5] of Yale University School of Medicine. She points out that Rosenstern wrote in 1910: "Cod liver oil is in the forefront of children's remedies. For long it has been struggling against the skepticism of exact science." This comment deserves to be driven home to those who tend to develop that most reactionary it-can't-be-done attitude. Guy reminds us that in each country the experience was the same: Cod liver oil was used by the fishing people and peasantry; and then accidentally observed by some physician, tried by him, and so made known generally to the profession. At first, it was used in chronic rheumatism and gout; then, naturally enough, in other bone and joint diseases, notably

rickets and osteomalacia (which was considered closely allied to gout); then in scrofula, because of its supposed identity with rickets, and finally in other forms of tuberculosis.

Today, even though we cannot "explain" the action of cod liver oil, its beneficial action in various conditions has been placed on a rational basis. The "healing potency" can be demonstrated by measurable changes under controlled conditions. The results of carefully planned experiments on laboratory animals have been brought to bear on clinical experience, so that one is justified in concluding with Park, Guy and Powers[6] of Yale that, in the presence of calcium or phosphorus starvation, cod liver oil enables the animal to get along as if the calcium or phosphorus were supplied in sufficient or almost sufficient quantity in th ediet. Obviously, they say, cod liver oil makes the metabolic processes of the body in respect to these two elements vastly more efficient, even though it does not supply them.

The clinician's observation, long unsupported and even disparaged by the worker in the chemical laboratory, has thus "come into its own." Mental aloofness and a hypercritical attitude have become obliterated in the common belief in established facts. Let us, however, not on that account overexalt empiric methods or undervalue a rigorously critical attitude. The latter has more than once saved us from quackery and charlatanism, from painful error or dangerous overconfidence. The cults always delight to stress the historic incidents of the failures of the scientist to grasp a truth that was subsequently proclaimed far and wide. But even the rankest empiricist is quick to discover a palpable fraud. Metallic tractors, electric belts and even subtle electronic currents are schemes of deception which do not require scientific training and clinical insight, but merely common honesty for their undoing.—Jour. A. M. A.

4. Luckhardt, A. B.: The Progress of Medicine, J. A. M. A. 81:347 (Aug. 4) 1923.
5. Guy, Ruth A.: The History of Cod Liver Oil as a Remedy, Am. J. Dis. Child. 26:112 (Aug.) 1923.
6. Park, E. A.; Guy, Ruth A., and Powers, G. F.: A Proof of the Regulatory Influence of Cod Liver Oil on Calcium and Phosphorus Metabolism, Am. J. Dis. Child. 26:103 (Aug.) 1923.

SAFE DRIVERS

As deaths and accidents from careless automobile driving mount to more and more striking figures, new panaceas are offered for the correction of the evil. Stringent laws and severe punishments have had some mitigating effects, but in addition there appears to be necessary some method for providing that those who attempt to drive motor vehicles are mentally and physically competent. Establishment of a suitable standard would in itself be an important accomplishment. For example: What should be the minimum age for those entrusted with motor vehicles? What standard of eyesight is necessary before a person can safely judge distances? How much hearing is necessary to permit a driver to accommodate his position to the warning signals coming to him from other vehicles from behind or to the side? How rapid and satisfactory must the mental reaction of the driver be to enable him to judge whether or not he can

pass a grade crossing before it is reached by the approaching train, and to act quickly in case of emergency? Certainly, the time is ripe for the establishment of such standards and for insistence that those who drive fast-moving vehicles pass the test. Is it not absurd that evidence of competence should be required of professional drivers, where any amateur may drive without proof of his fitness?—Jour. A. M. A.

THE TOTAL AND THE NITROGENOUS METABOLISM IN EXOPHTHALMIC GOITER

The total and the nitrogenous metabolism in exophthalmic goiter, from both the practical and the theoretical points of view, was carefully studied by Walter M. Boothby and Irene Sandiford, Rochester, Minn. (Journal A. M. A., Sept. 8, 1923), in nine cases. Every effort was made to insure the completeness of each experiment. The evidence presented indicates that there is no measurable increase in the endogenous protein metabolism in exophthalmic goiter; therefore, it cannot be the cause of the increased basal metabolism in this disease. The cells consume at an accelerated rate whatever type of food is brought them, but in none of our experiments is there any evidence to indicate that any of the three food substances, fat, carbohydrate or protein, is burned in a qualitatively abnormal manner. As in the normal subject, the body's own stores of these substances are not drawn on except to meet deficiencies in food intake. However, unless the daily calory requirement is supplied by a large food intake, loss of weight and a general weakened condition with decreased resistance are more rapidly developed, and of a more intense form than that seen in normal subjects as the result of undernourishment. It is our experience that patients with exophthalmic goiter who are losing weight are more dangerous operative risks than those who are well nourished, or gaining in weight. Therefore, measures directed toward preventing and, if possible, restoring loss of weight should be instituted before operative procedures are undertaken, if the lowest possible surgical mortality rate is to be attained.

THE REMOVAL OF TONSILS

Twenty-five years' experience with this work has convinced Burt Russell Shurly, Detroit (Journal A. M. A., Sept. 8, 1923), that the Sluder method for children and the tonsil knife or scissors offer the best methods of enucleation. Careful inspection and reinspection for remnants in the velar lobe at the base and along the pillars will result in fewer secondary operations. Ether is the choice of anesthesia for children, and the reclining position on the side lessens danger. In adults, procain, 0.5 per cent., the sitting position and dissection are most advantageous. Tonsillectomy requires constant and careful after-observation and after-treatment to lessen infection and prevent adhesions. Irradiation should be limited to cases that present well defined contraindications to anesthesia or tonsillectomy.

THE CLINICAL PICTURE OF STEPTOCOCCI OSTEOMYELITIS OF THE TEMPORAL BONE

The clinical picture of a disease

of the temporal bone which is to be recognized and diagnosticated as a clinical entity is portrayed by Harry Boyd-Snee, South Bend, Ind. (Journal A. M. A., Sept. 8, 1923); of 285 cases, the disease was found on both sides in thirty-five. The findings in the examinations made of the material recovered and designated preoperative, operative and postmortem have been consistently characteristic in every case, and on the anatomicopathologic and the bacteriologic findings the specific diagnosis of acute streptococci osteomyelitis rests. In 186 instances, accurate preoperative bacteriologic findings were established culturally from the exudate recovered from the tympanic cavity. In every case but one attention was first attracted to the region by the development of an acute otitis media or an acute exacerbation of a chronic otitis media. In every instance the streptococcus was recovered from the tympanic exudate before the operation, and the same organism was again recovered, either in pure culture or in culture mixed with other pyogenic organisms, from the infected cancellous bone through the operative wound. The causal agents were found to be the streptococcus in mixed strains or the streptococcus mixed with other pyogenic cocci (staphylococci and pneumococci) or bacilli (influenzae, pyocyaneus and diphtheroids). The clinical picture of acute, uncomplicated streptococcic osteomyelitis of the temporal bone is that of acute suppurative otitis media, and there is no variation. The termination was fatal in thirty-one, making the mortality 11 per cent. Death in twenty-nine was the result of an intracranial streptococci suppuration in connection with the primary streptococci osteomyelitis. Twenty-eight of these were streptococci leptomeningitis, and one pyemia, the latter in connection with a septic thrombosis of the lateral sinus. The connection between the primary osteomyelitis and terminal complication was definitely established by necropsy findings in twenty-four instances. Two patients died of pneumonias which had no demonstrable connection with the primary osteomyelitis. In the material utilized in this work, the streptococcus organism has been identified as a gram-positive diplococcus recovered from cultures from which the pneumococcus has been excluded by test. It has typed variously as Streptococcus mucosus-capsulatus, Streptococcus viridans, Streptococcus pyogenes, Streptococcus hemolyticus and Streptococcus nonhemolyticus.

POST-TRAUMATIC BONE TUMORS

As far as he has searched the literature, S. D. Foster, Toledo, Ohio (Journal A. M. A., Sept. 8, 1923), says there is no experimental proof that injury has caused bone tumors. Some writers think there is an underlying constitutional factor, which with the trauma, causes bone tumors. During the war work many cases of bone tumors were reported, following injury, either with or without infection; but most of these war wounds were infected from the onset. The greatest task in this study is in the line of diagnosis. In view of the high mortality of sarcoma, especially as to its final results, it would seem advisable to take some extra time to make sure of the diagnosis. It

would be better to save a limb in a benign case, even with the slight added danger from the time taken to make this diagnosis as complete as possible.

MINERS' SILICOSIS: ITS PATHOLOGY, SYMPTOMATOLOGY AND PREVENTION

Anemia, loss of weight and cough are the principal symptoms in the first stage of miner's silicosis, according to Robert T. Legge, Berkeley, Calif. (Journal A. M. A., Sept. 8, 1923). The physical evidences adduced by percussion are negative in the early stage, although auscultation may reveal a few rales in the bronchial tract, the apexes usually being clear. A characteristic symptom is the bluish green sputum, which, in the majority of cases, is negative for tubercle bacilli, and which, if found present, is due to a reactivation from a former infection. The most valuable instrument in diagnosis during the period of fibrosis is the roentgen ray. During the second stage, there is a feeling of tightness and constriction of the chest; expansion is limited to about 1 inch; dyspnea becomes more marked; the cough is more severe; the expectoration is greater in amount, and at times streaked with blood. Temperature is slight, frequently afebrile. The roentgenologic examination reveals a more extensive mottling throughout the lung; invariably a greater distribution is noted in the right lung. In the third stage, the symptoms are more aggravated and are characterized by very marked dyspnea and profuse expectoration after coughing, frequently with hemorrhages. Inspection reveals the chest expansion to be negligible, the interspaces increased and the apexes retracted. A noticeable pathognomonic condition observed in one third of all the cases is the adherence of the right diaphragm, due to the presence of adhesions, thereby lessening the functional capacity and causing a pronounced dyspnea. From a public health standpoint, Legge urges that microscopic examinations of the sputum should be conducted regularly, so as to differentiate miners' silicosis from phthisis; especially is this precaution necessary to prevent tuberculosis in children in the homes of suffering miners. Prevention is the only measure that offers a solution in this disease. As to environment, which, in the last analysis, is the actual cause of silicosis, two methods of prevention are applicable: mechanical exhaust ventilation and the wet process. And lastly, better housing, company cafeterias, public health nursing, medical supervision and education of the workers as to the dangers of silicosis dust inhalations will work wonders toward the control and abolition of this deadly disease.

FOUR DEATHS CAUSED BY SODIUM FLUORID

The amount of sodium fluorid varies from 16 to 63.6 per cent. in roach powders. Sodium fluorid has not been regarded as a poison, but William D. McNally, Chicago (Journal A. M. A., Sept. 8, 1923), is of the opinion that it is time that manufacturers and dispensers of insecticides label their products "Poison," and inform the public that insecticides contain certain substances capable of causing death or seriously affecting the health of the individual when it is taken by mistake

for a baking powder or a laxative. Three accidental deaths and one suicide are reported by McNally. The chief symptoms are burning in the stomach and bowel, muscular paralysis, vomiting and diarrhea, and failure of the heart and respiration. Salivation was noted in only one case, while convulsions were not noted in any case. In suspected cases of poisoning, the soluble sodium salt may be rendered inert by conversion to the insoluble calcium fluorid by copious and repeated gastric lavage with lime water or a weak solution of calcium chlorid. Many mistakes in the future could be obviated if all the insecticides were colored with 10 per cent lamp black or other coloring matter.

THE VALUE OF THE KAHN PRECIPITATION TEST FOR SYPHILIS

From a critical survey of his results, H. K. Detweiler, Toronto (Journal A. M. A., Sept. 8, 1923), feels warranted in stating that while the Kahn precipitation test affords results remarkably parallel with the Wassermann test, it is not yet the equal of the latter in reliability, at least in our hands. It fails principally in three classes of cases: (a) treated syphilis; (b) early primary syphilis, and (c) cerebro-spinal syphilis. Here the failure is the more serious, since the test cannot be applied successfully to the cerebrospinal fluid. Many of the discrepancies in treated cases are instances of negative Kahn tests with the Wassermann fixation as weak as 1 0 0. In the cases marked "no history of syphilis," one is depending for the most part on the hospital interns, some of whom are careful and trustworthy, and some apparently very unreliable. Nevertheless, the Wassermann reaction was positive and the Kahn test negative in four cases with "no history of syphilis," whereas the converse was true in sixteen cases with the same history. It would seem that, just as in nonspecific fixations in the Wassermann test which commonly read up to 3 2 0 or thereabouts, a small precipitation, such as one plus, in the absence of a history of syphilis would not be taken too seriously. In a large hospital, in which many specimens of blood are handled, Detweiler has made it a rule that in all cases of Wassermann-positive blood without history or signs of syphilis the test is to be repeated before the report is finally made. This is to avoid errors resulting from mixing specimens, and misinterpretation of non-specific fixations. In such cases, a confirmatory Kahn test is of the greatest importance, and tends to increase one's confidence in the Wassermann reading, in spite of absence of history or signs. Therefore the two tests are performed in parallel as a routine in the Toronto General Hospital. The ease with which this test is done makes it practicable for use in laboratories and offices in which facilities for performing the Wassermann test are lacking. Carefully conducted, it is almost as reliable as the latter.

ANTACID GASTRIC THERAPY, WITH ESPECIAL REFERENCE TO THE USE OF NEUTRAL ANTACIDS

The neutralizing effects of calcium phosphate and magnesium phosphate as compared with sodium bicarbonate and magnesium oxid were investigated by John L. Kan-

tor, New York (Journal A. M. A., Sept. 8, 1923), in a series of 220 cases. At first, bone ash (crude calcium phosphate) was used; later, pure calcium phosphate and magnesium phosphate were employed. Both the dibasic ($MgHPO^4$, $CaHPO^4$) and the tribasic ($Mg^3[PO^4]^2$, $Ca^3[PO^4]^2$) forms were employed, the latter being, of course, the more effective neutralizer. The calcium salts being slightly constipating, and the magnesium being laxative in action, the tendency of the patient either to constipation or to diarrhea was used as a guide to the choice of the appropriate drug in the particular case. The dose of either compound was from one-third teaspoonful to two teaspoonfuls (1 to 6 gm.) three times a day after meals. No ill results have been observed. For the control of the common symptoms of hyperacidity, such as pain, heartburn, sour belching, distress and gas, the neutral antacids are clinically effective in most cases. In a few instances, however, these symptoms are either not completely controlled or are not so rapidly relieved as by the alkaline antacids. Such cases are generally, but not invariably, those in which a carminative action seems necessary. However, it has been observed that, once initial relief is obtained by any method, permanent comfort can generally be assured by the subsequent use of the neutral antacids, thus making for real physiologic and therapeutic economy. Neutralization of the gastric juice—should such an ideal be regarded as desirable—can be carried out for longer periods and more safely than if alkalis alone are relied on for this purpose. There are certain possible dangers inherent in the administration of alkaline antacidids. Such dangers are the unphysiologic alkalization of the gastric contents, and the disturbance of general metabolism with particular strain on the excretory functions. The use of the neutral antacids (phosphates of calcium and magnesium) is free from these dangers.

THE ANTIRACHITIC INFLUENCE OF EGG YOLK

Seven children, all colored, suffering with rickets, usually of a severe degree, were fed by H. R. Casparis, P. G. Shirley and Benjamin Kramer, Baltimore (Journal A. M. A., Sept. 8, 1923), on milk and cereals to which one or two eggs a day were added. All the children with but one exception took the egg well. This child refused the egg for several weeks, but took farina and milk. The rachitic process was not improved. Later the egg was well taken, and the rachitic process soon began to heal. No allergic reactions were observed with any of the children. The usual technic of such studies was observed. Roentgenograms of the extremities were taken on admission and at subsequent intervals, and the blood serum was analyzed for calcium and inorganic phosphorus at the same time. Definite healing could be demonstrated by the roentgenogram within three weeks after egg was made a part of the diet, and the inorganic phosphorus of the serum increased from the low level of active rickets to the normal of 5 or more milligrams per hundred cubic centimeters of serum. The addition of 10 per cent egg yolk to a rickets-producing diet will initiate healing of the rachitic process in the rat in six days.

AN OVARIAN HORMONE

A follicular ovarian hormone has been prepared by Edgar Allen and Edward A. Doisy, St. Louis (Journal A. M. A., Sept. 8, 1923), from the liquor folliculi of sows' ovaries. From one to three injections of this extract into spayed animals produce typical preestrual and estrual hyperemia, growth, and hypersecretion in the genital tract and growth in the mammary glands. After a time the effect of these injections wears off and typical degenreative changes set in. This hormone seems to be an efficient substitute for the endocrine function of the ovaries of the nonpregnant animal. While these spayed animals are in a condition of artificially induced estrus, they can be mated with normal vigorous males. They experience typical mating instincts, the spayed females taking the initiative in the courtship and showing no aversion to advances by the male. Successful copulation occurs, followed, as in normal animals, by the formation of typical vaginal plugs. Since these animals will copulate only when in estrus, the conclusion seems justified that this follicular hormone is the cause of estrual or mating instincts. Several injections of active extracts were made into animals immediately after weaning, at an age of from 3 to 4 weeks. They became sexually mature in from two to four days, at least twenty to forty days before the usual time of the attainment of puberty. From these experiments it is concluded that the attainment of sexual maturity, involving possibly the development of the secondary sexual characters, is brought about by a hormone from the follicles, although the consummation of their maturation is in some way restrained. So far the authors have obtained only negative results from their extracts of corpora lutae and commercial extracts of ovaries, corpora lutae and ovarian residue from three of the largest firms manufacturing biologic products. It is probable that this hormone is produced under the influence of maturing ova by their follicle cells. Since it is obtained from the ovaries of hogs and cattle and produces results in the mouse and rat, it is not species specific. It is probably produced in all ovaries as their ova mature, and therefore is probably common to all female animals.

GRADUAL EMPTYING OF THE OVERDISTENDED BLADDER

Von Zwalenburgs method of emptying overdistended bladders without at any time reducing the intravesical pressure suddenly has been used at the Mayo Clinic in the treatment of eighty-three patients. Herman C. Bumpus and Gordon S. Foulds, Rochester, Minn. (Journal A. M. A., Sept. 8, 1923) state that sudden edema and congestion incident to the removal of even a small amount of urine has not occurred. Almost without exception, the patients were in very poor general condition; many were definitely uremic on admission to the hospital. The majority had had definite retention and overflow for at least two or three months, and several for more than two years. In many instances it was difficult to get a clear history to indicate the duration of the urinary retention. In all of the patients, the bladder was distended sufficiently to be demonstrated by percussion or pal-

pation above the level of the symphysis pubis. The renal function was generally very poor; the reaction to catheterization and emptying the bladder was usually very slight. Occasionally there was a slight fever to 100 or 101, rarely higher, or associated with chills. After the bladder was emptied, it was kept empty by an indwelling catheter, which was usually well borne. The progress of the patients was generally very satisfactory, and the usual preoperative procedures were carried out as in the less severe cases. Renal function improved in almost all cases; the average phenolsulphonephthalein output in two hours increased from 10.59 to 40.42 per cent. The blood urea average fell from 95.85 to 52 mg. for each 100 c.c. blood. Eleven patients had hematuria; four of these had a history of hematuria, or were bleeding before manipulation was undertaken, and one had a carcinoma of the bladder, hypertrophied prostate, and retention of urine. Only two patients (2.5 per cent) died from the effects of emptying the over-distended bladder.

A SIMPLE METHOD OF APPROXMATING THE PROPER RATION FOR A DIABETIC PATIENT

J. H. Kellogg, Battle Creek, Mich. (Journal A. M. A., Sept. 8, 1923), has prepared a table by the use of which laborious calculations may be saved. The table presents several hundred daily rations which have been calculated for different degrees of sugar talerance, from 200 gm. to 10 gm., and for different degrees of sugar tolerance, and for different quantities of protein varying from 80 gm. to 10 gm. The basis of the calculations by which the figures have been arrived at is to be found in the following well known facts which have been established by modern metabolism studies: 1. One gram of carbohydrate will suffice for the burning of from 1 2-3 to 3 or 4 gm. of fat. The lower figure is very conservative. 2. Protein is ketogenic to the extent of 46 per cent of its weight, the equivalent of 51 per cent of fat. 3. Protein, when metabolized, yields 58 per cent of its weight of carbohydrate. 4. Fat, when metabolized, yields 10 per cent of its weight of carbohydrate (glycerol). With the patient's sugar tolerance known, it is easy to calculate a diet that will supply such quantities of protein, carbohydrate and fat as the patient should be able to utilize without the appearance of sugar in the urine and without the production of acidosis.

RADIOLOGIC GASTRO-INTESTINAL STUDIES IN EPILEPSY

The main point emphasized by Ward W. Harryman and Sam W. Donaldson, Ann Arbor, Mich. (Journal A. M. A., Sept. 8, 1923), is that in a considerable number of epileptics there is hypermotility of the colon, and in some, hypermotility of both cecum and colon. No definite evidence of colonic stasis is found. The term "constipation" is a complaint of the patient, and associated with a cathartic habit. It does not indicate colonic stasis. There are no indications for surgical procedure to relieve these patients of colonic stasis, since a true colonic stasis does not exist.

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OPERATING ROOM TECHNIQUE

Address Delivered at the Annual Meeting West Virginia Association, Beckley, June, 1923.

By HUGH H. TROUT, M. D.
Roanoke, Va.

I am indeed greatly appreciative of the invitation to talk to you gentlemen, but I shall admit that when Dr. Ashworth wrote me that I was to talk on operating room technique I was both glad and sorry—sorry because I do not believe that any man can talk on that subject and do justice to it, and glad because I think all of us ought to give more attention to it.

In taking up any subject I think one of the first things we think of is the history of it. You could talk a long time on the history of operating room technique. There is one thing that is peculiarly striking at this time, when we are all trying to enforce the eighteenth amendment. That is, when you read the life of Louis Pasteur, you find that he was not particularly interested in asepsis but in the preservation of his wine. That was really the beginning of asepsis.

Most of us in this room are even old enough to remember some of the epochs in the development of operating room technique. Some years ago, while in Virchow-Kraukenhous I saw a man operating in a carbolic acid spray. That man, Von Bergman, was operating with boots on, wooden boots. There was on the floor about six or eight inches of this carbolic acid solution, mixed with blood. The assistants and many of the professors wore boots and numerous are the stories told about the various professors slipping and falling in this bloody bath.

There is another and very interesting and instructive development in the history of cleanliness. Of course we all know that it was due to Dr. Halsted's influence that we have the rubber gloves. I doubt, however, if we realize that it was more or less of an accident. Dr.

Halsted had a nurse who could not clean up very much due to the fact she had a dermatitis, and he suggested that she wear gloves. The first gloves she wore were cotton, but it was from that incident that the rubber glove came. As you all know, the rubber glove was first employed as a protection against the patient, and not as a protection for the patient. I can well remember that when I first came to Virginia, fourteen years ago, rubber gloves were not in common use, and many times I had it said to me, "Don't be such a coward; go ahead and take your medicine," and they might have added "your chances of infection."

We all have our own technique. There is is only one thing I can say, and that will be the burden of my song here today—I do not believe any man can develop operating room technique by hearing a paper or reading books, but only by constant application, mostly in the hospital. I have never see a man develop absolute cleanliness in any other way. He has to develop what we call an aseptic sense, and he can develop that only by practice. I think we all agree that we are going to scrub up at least ten minutes; some say twenty. Now, it is not the length of time, but the manner in which you scrub; it is not the form of doing it for a certain length of time. One of the nicest things I know of is to have a sand-glass and not depend upon a clock. We have visitors practically all the time, and they talk to us and we talk to them, and forget when we looked at the clock. But if you set the sandglass you do not have to bother; you just look at that.

Lots has been said about various kinds of soap. It does not matter much; almost any soap will do. Just so every part of the hand and forearm, particularly between the fingers and around the nails is thoroughly scrubbed.

After washing the hands go into some kind of solution; it does not make much difference which. Most of us believe in alcohol. It was only a few years ago that I gave up oxalic acid and permanganate. I gave it up with regret, because I felt that the process more or less tans the hands and keeps them in good condition, but I did not believe that the tanning was worth the amount of trouble.

After a certain length of time in alcohol we go employ either wet or dry gloves; preferably we use the wet gloves, as they are easier to get on. Certainly the wet glove is safer, because you have the hand bathed all the time with a bichloride solution, or some other antiseptic, and if you break the glove you will not contaminate the wound.

You men in West Virginia owe a great deal to one of your members. As you all know, Dr. Cannaday wrote the first paper published in America on iodin technique. I shall never forget that when the iodin technique first came in, Dr. Maurice S. Richmond, Professor of Surgery at Harvard, was very much opposed to it. He would always wind up by saying, "I have never seen a short cut to godliness, and I do not believe there is any short cut to cleanliness." We have all learned the necessity of protecting our incisions with gauze to prevent adhesions. When we first began the use of iodin technique we had a white orderly who expressed my views. He would ask: "Doctor, are we going

to clean up this patient or us iodin?" Recently reports have come out of the death of two patients due to iodin. The patients had an idiosyncrasy to iodin. Iodin was left on the belly. If the iodin had been removed immediately, possibly the patients would not have died. The vast majority of our patients who come in with traumatized wounds have had iodin, and a great many have had both iodin and bichloride. That combination will cause a dermatitis which is very hard to clear up.

The question of sterilization of dressings is a very important one. Unquestionably we all think what we are doing is the right thing. I think perhaps we do too much in the check-up; possibly we do not. Possibly it is because we have a large laboratory, with a man who has a very inquisitive mind in charge of it. We put up all of our bandages, gauze, etc., with a Diack tube in them. That tube has a little tablet in it, and if that is not dissolved we know it has not been sterilized. The nurse must examine a package that is the largest and most compact. If the tablet is dissolved she knows that it is sterilized. Where the laboratory man comes in is that once or twice a week he takes a little piece of gauze or piece of gown or something and puts it in a culture medium, and occasionally he gets a growth, perhaps once or twice a year, in spite of the Diack tube control.

There are many views regarding gowns. As you all know, in the Mayo Clinic they put on a linen suit, then put on sleeves and towels. The sleeves are interchangeable. Of course, they are supposed not to touch it. But for the rest of us, who are not so expert, I think we would be safer to put on the complete gown and change after each operation.

Recently, while in the midwest, I was surprised to find that there had been a number of fatalities from commercial catgut. Reports of twenty-two deaths had been collected in the middle West and in New England. So several hospitals have gone back to the old method of manufacturing their own catgut, or are using laboratory controls, using some modification of the Bartlett method, but those of you who do not have large laboratories are dependent upon commercial catgut. So far as I know, we have had no trouble in this part of the East from tetanus following the use of catgut. There was no question of these deaths being due to the catgut, because what was left in stock was taken out and put in culture and tetanus found. It was all from one manufacturer.

The next point I have down on my notes is silk. I know there is no question about the use of silk. If you show me a clinic that is using silk, I shall show you an almost perfect technique. We recently reviewed our series of hernias. The recurrences with the catgut were about four per cent; the recurrences with silk less than one-half of one per cent. Dr. Adrian Taylor recently reviewed a series of somewhat over four thousand herniotomies, and in that series the results from silk were very much better than with catgut. Recently Dr. Dean Lewis has added a little something to the silk that makes it much more pliable, and makes tying it much simpler. Boiling it in beeswax makes it much easier to handle. Another thing is that if you use a very fine

silk and put enough tension on it to cause tissue necrosis, the silk will break, and thus you know when you have it too tight. As you all know, with catgut you can tie it too tight and get tissue necrosis.

I do not know of anything that has added more to my comfort in doing bone work than the Hawley table. I think all operating rooms, possibly, should be equipped with a portable x-ray. Of course we do not want too much equipment, but in doing much fracture work, especially ununited fractures, that is one of the greatest comforts we have.

There has been no recent greater contribution than what Crile has done for us in protecting the nervous system of the patient. You should have some means of putting the patient to sleep before taking him into the operating room. Do not let that patient see the instruments or any blood or anything like that. For instance, if you are doing abdominal work under local anesthesia, do it, if possible, in the patient's room. I believe that is where Crile adds materially to the results obtained in his beautiful work with those horrible toxic goitre cases.

Where we are doing only one or two operations a day I believe it is much safer for us to have a separate sterilization in between operation. It takes a little more time, but I have not much confidence in the surgeon who is watching the clock too closely.

Due largely to the work of Scott, from Texas, the application of the cautery to surgery, especially the surgery of malignancy, has come very prominently into view, and a lot of men are now using the cautery in cancer, especially cancer of the breast. You remember the old clumsy way we had of wrapping a towel around, having the ends flapping over everything. Now we have a cautery with a cord and a handle that can be boiled, and that is a great comfort.

We hear a great deal about the leaving in of pads and sponges, and there are a lot of pads and sponges that we do not hear about. I do not believe we would leave any in if we would adopt a method used by Truesdale of Fall River. With this method there is sewed on each pad that you are going to use in the abdomen a piece of tape, and on the other end of the tape is sewed a ring. The ring is so large that it can not get into the incision, so you will not leave any sponges in the abdomen.

Right at present we are carrying on some work that is very interesting to us. Since returning from France we have been trying the use of sodium citrate solutions instead of sodium chloride. We all know that sodium citrate keeps the blood from coagulating and we know that the clotting of blood causes postoperative adhesions. We have a theory—we do not know whether or not it is true—that in using sodium citrate blood will not coagulate, or will be absorbed before it can coagulate. So far we have not been able to prove it, but we feel that we do not get nearly the number of adhesions with sodium citrate as we did with sodium chloride.

Some one asked me what I think is the most frequent break that I see. The most universal break is in hot weather, when a man is sweating and wants his face mopped, the nurse will come and mop his face

right over the incision. That is inexcusable.

Now, I have only touched a very few of the high spots. One could talk a long time on this subject. The point I want to bring out is that operating room technique can not be developed without an aseptic sense, and that you can not develop centre except in the operating room under the supervision of some man who has it.

* * *

Dr. Hugh G. Nicholson, Charleston:

I know that we have all very much enjoyed Dr. Trout's most excellent address on this subject. The subject of operating room technique has been one of intense interest to me ever since my internship in 1897. At that time we had just begun the use of gauze sponges in operating room work. Many, many hundreds of these sponges have I beaten with a rolling pin, breaking the shells, picking them out, taking them through the permanganate and oxalic acid solutions, and preparing them for use in the operating room.

I began this work also before the advent of the rubber gloves.

Dr. Trout has so fully covered the whole subject that there are very few points I can touch. The most frequent break I find in operating room technique is the carelessness of the operating room nurse in preparing herself, her hands, etc., for the operation, and unless the nurse is clean your operating room work will be a failure. Most operating room nurses are given from three to six months' training under another nurse, and I am sorry to say that most surgeons do not supervise this training. You should lecture three to six times to each change of nurses on at least how to prepare for this work * * * talked to his nurses about scrubbing up, and told them it was a most important thing, then had them wash in turpentine.

The rubber glove is a great safeguard. No surgeon can clean his hands by scrubbing and by scrubbing alone, so the rubber glove is the safest thing to use. Probably the wet glove is safest, though the dry glove can be as safe if you are sure the dusting powder you put over your hands is sterile. In the last hospital with which I was connected we dropped talcum powder and used boric acid, which is also an antiseptic, but we put it through an autoclave at least three times.

Many of you men have gone into the abdomen a second time, having taken out the appendix the first time, and found adhesions. The reason is that you probably used plain catgut. All makers of catgut teach that plain catgut is absorbed in about twelve hours. I heard Dr. St. Clair say a few days ago, in reviewing a series of cases which he had to go in a second time, that he had ligated a gall duct three times. He thought he was using chromic catgut but had used plain, and in a few hours the catgut was absorbed and the cystic duct wide open and bile in the abdomen. One of my colleagues has had in his experience three or four ovarian ligatures slip. Those ligatures did not slip, but he used plain catgut.

One other cause of bad results is the leaving of dead space in closing up the wound. If you leave an open space, after the anesthetic passes off, you will have a hemorrhage, maybe a very small one,

a teaspoonful of blood. Unless you close it up you will have this blood clot, which furnishes an ideal place for the growth of germs, which are always present.

One other very common cause of trouble is mutilatioin of tissue, undue handling of guts, incision, etc. I venture to say that I can do eighty hysterectomies out of one hundred and not put a single sponge in at all. If you get used to it you can operate without the use of retractors. Those hard instruments bruise the tissues, and gauze will cause a little rubbing off of peritoneum from the intestines. What is the result? You will get adhesions within the belly if you use retractors continuously in your operating room work.

I shall mention, just for a moment, sterilization. Dr. Trout mentioned the use of tubes within the packages, but you can dissolve those tablets and not have the packages sterile. During my war service it was my distressful duty to trace out the cause of some deaths from infection. On account of the rush work we put the packages through only once, but found that by putting them through three times, three days in succession, we could kill the spores as well as the germs, and avoid infection.

* * *

Dr. H. G. Steele, Bluefield:

I want to say to Dr. Trout that we are glad he came, and we enjoyed his talk very much. It has helped me, I think. I am a baby in the hospital business.

There is one question I want to ask. Dr. Trout spoke of the iodin technique. Personally I use lysol solution almost entirely. I sterilize them, even soak them in the solution. I sterilize my hands, then put on the gloves. I want to know if I am right, or if I misunderstood. He said something about using a three per cent, solution of iodin. My understanding is that seven or seven and a half grains to the ounce is normal strength. Possibly he meant his solution is of normal strength. I would like to know if I am right.

Some time ago I asked Dr. St. Clair to come in and help with an operation, and he asked me if I had some benzine. I had gasoline, and we used it very profusely on the patient between the legs, on the scrotum, etc. In a few days the patient had a very beautiful burn there, and I felt very sorry for him. That taught me never to use anything of that kind.

* * *

Dr. Trout, closing the discussion:

As to the iodin solution, the report from Massachusetts was three per cent. That is stronger than we use, but whatever strength you use you must get it off with benzine or gasoline pretty quickly. Alcohol will remove it, but not as quickly as gasoline or benzine. Generally there is very little difference between gasoline and benzine.

PSYCHOPATHOLOGY AND MENTAL HYGIENE

DR. J. G. PETTIT
Assistant Superintendent Weston State Hospital, Weston, W. Va.

Read Before the Lewis County Medical Society, Oct. 9, 1923

Owing to the indifference of the general practitioner to Psychiatry it is a subject rarely encountered on a program of a society not giving

special study to mental diseases. Most physicians frankly admit a lack of knowledge of mental diseases, yet in practically every case of mental disturbance the family physician is called upon. Much reliance is placed by the relatives upon what he says and quite frequently he is called before the Mental Hygiene Commission or into court to testify where the property interests and the liberty of the individual are involved. For these and other reasons I shall mention, it is a subject that merits more consideration than those in general practice have been giving it.

I disclaim any intention or ability to contribute anything new or of unusual interest to those giving special study to psychiatry and in my efforts to be brief will omit a great multiplicity of facts which could be written under the above caption. A great many misconceptions of the past have been dissipated by the steady progress made in mental disease in the last decade, yet a study of depositions of physicians accompanying commitments to state hospitals shows, I believe, far too frequently opinions long ago abandoned. The object of this paper is to briefly mention some of the errors with the newer conceptions in the etiology, treatment and prevention of the psychoses and neuroses.

The most frequent error and one causing no small amount of mischief is the fallacy that all that is necessary for a healthy mentality is a healthy body and, conversely, that an unhealthy mentality presupposes an unhealthy body. With this viewpoint undue significance is attached to some physical trauma of the past or present and the situation too often vigorously attacked with medicinal or surgical treatment without the consideration to other etiological factors.

We have the psychoses accompanying toxemias and somatic diseases with a definite physical and chemic background requiring medicinal and surgical treatment. Every foci of infection or irritation should be eliminated. Many patients arrive at state hospitals in very poor physical condition by reason of neglect of the ordinary precautions against ill health. A very common error is in the handling of the manic-depressive cases. If a toxemia does not precede the mental manifestations one usually supervenes by reason of the psychomotor symptoms. The usual dosing with bromides, morphine and other sedatives does harm by adding to the toxic overload with which the patient is already struggling. Thorough elimination, washing out the stomach by the aid of a stomach tube through which cathartics and later nourishment can be administered is far more rational and would often prevent death and start a convalescence which might be completed at home. I have known many of these patients to die en route or within a few hours after they reach the hospital.

Another misconception very hard to overcome and one that has caused incalculable mischief is the popular belief, especially among the laity, that surgery should be the first thought in the treatment. I have had under my care over one hundred and fifty women on whom operations had been performed either for the removal of normal organs or the correction of minor

chronic conditions very common among childbearing women in a vain endeavor to bring about mental improvement. Four have appeared with gapping and of course infected wounds following laparotomies. One of those who died on my hands was the subject in a paper read before the State Medical Association and later published in The State Journal entitled, "A Case of Insanity Cured by Surgery." I have often wondered why, if unsexing the female was a measure of such wonderful therapeutic promise, the same treatment was not applied to the males. Surgery in the insane? Yes, they are subject to all the ills of their sane brothers and are equally as deserving of the added comforts to be thus derived, but not to be arrived at as a therapeutic measure in mental diseases by a process of reasoning without due consideration of all the factors which might have caused the psychosis.

The statistical tables of nearly all state hospitals showing the cause of the psychoses refer in many types to the physical and chemic backgrounds: toxemias, injuries, diseases and incidents of life common to the great majority. Childbirth and the Menopause are physiological yet we have the puerpural and the involutional phychoses. The etiological significance of these factors, I believe, has been overstressed. In many cases at least they are but accentuating factors which have brought down a weakened machine.

I have had occasion to examine over three thousand patients admitted to a state hospital. Not all of them have been so accessible that reliable personal histories could be obtained but often the information obtained from the patient is supplemented by visiting relatives and then, too, the actions and utterances of the most irrational are capable of interpretation. I shall briefly refer to facts brought out in the prepsychotic histories of these patients, I think, of clinical significance and to which too little attention has been paid.

The first three patients referred to were admitted in the week prior to the time this is written.

Case No. 1, Male, aged 46, onset in the depositions said to have been recent. Commitment followed an almost successful effort at suicide. From the history elicited from the patient it appears that relations between the father and mother were very unpleasant and that when the patient was aged seven the father left home. The patient's sympathies were with the mother but he is very bitter towards an "old maid" sister who figured prominently in all the dissensions and thinks his father would not have left home had it not been for her. As a child he became very irritable, uncommunicative, suspicious of his sisters and brothers and everyone else, was frequently in conflict with other members of his family, other boys, school authorities and the law. He learnt a trade but always found it difficult to suppress his anger towards his fellow workmen. At the age of thirty-three he married but quarreled with his wife and she and his daughter left him. His former difficulties were not intolerable and he managed an adjustment, but since he loves his wife and daughter their loss is different. Finding himself unable to adjust himself to

the realities of the external world, an external world delusionally conceived is visioned, one that transfers the fault from his personality to that of others, which in all patients marks the transition from the benign to the pernicious type. People are conspiring against him, he sees men on the street talking about him, hears them, the lodges have entered the conspiracy and there being no escape he attempts suicide.

Case No. 2. Male, aged 38, single. Facial expression pained and fixed, very suspicious and easily irritated; inhibition of all mental faculties and other symptoms indicative of the Paranoid type. He asks that he be assigned to a dining room where he will see no women. Women are troublesome, always conspiring against men, responsible for all the trouble in the world and all of them ought to be killed. This man from early childhood has been neuropathic. He was a patient here sixteen years ago for a short period and I know his history prior to that time. The home life, he says, was disagreeable. His mother was domineering and combative, had left the church to which the father belonged when the patient was three years old and joined another where she thought there was less restriction placed upon the activities of women. She and the father had quarreled about this and various other matters. It appeared to him that the father had always to submit the mother's wishes. His sympathies were all with the father.

Case No. 3. Colored, Male, aged 32. Recently became very much frightened; thought four members of the State Constabulary were in his yard intent on doing him some injury. His constant anxiety and restlessness led to his commitment. From what he tells me it appears that he has been neuropathic since early childhood, very sensitive and impressionable, always apprehensive of some injury from others, especially white people. His habitual anxiety had its origin, I believe, in a lynching of a member of his own race close to his home when he was four years of age, the horrible details of which had been narrated in his presence by his parents and others, no doubt, manifesting a fear transmitted to the boy which has subconsciously determined his reactions in later life. He is showing insight, and I believe will recover. Since writing the above this patient has acquired a good insight into his difficulty and has returned to his home.

Case No. 4. Male, age 32, has been under observation about two months; was a troublesome patient in another institution before being transferred to Weston. He manifests well organized delusions of persecutions, imagines that people look at him askance and picks up fragments of conversation and brings them into relation with himself. From his history it appears that he, too, has been neuropathic since early childhood. He tells me that he was not treated by his mother as were the other children, recounts in minute detail humiliations and abuses he suffered at the hands of his mother at an age as early as five. He remembers his father as a very just man and says that he, too, was abused by his mother. The patient was but seven years of age when his father died. He went about from farm to farm working

for his living, always in trouble with those for whom he worked, usually the women of the household. He married but his mother-in-law, who put him in mind of his mother, interfered, and then his wife too took on the same behavior characteristic of the mother. He had early developed, by reason of his home environment, a subconscious feeling of revolt, a revolt first against his mother's authority which has finally grown to a revolt against all authority.

From another patient completely dominated by a feeling of inferiority I learn that the father was a man of an abundance of self-esteem and prided himself on the fact that his word was law in his household. The mother was submissive and always afraid of doing something that would arouse the displeasure of the father. Self assertion in the boy was always discouraged instead of being encouraged; he early developed a feeling of inferiority (not an unusual prepsychotic symptom where there is a history of a domineering parent), depended wholly on his mother, and tried to make up for the deficiencies of the father in the mother's life. They lavished affection upon one another, slept together until he was a large boy and he much preferred his mother's company to that of other boys and those of the opposite sex.

A young women developed delusions of persecution with homicidal tendencies. She and her mother were very affectionate in their relations; the patient always preferred her to other company and slept with her until the mother died when the patient was in her fourteenth year. In narrating her difficulties the husband came in for much criticism. A careful checking of his faults with her praise for her mother showed beyond doubt that what she desired in a husband was substitute for the dead mother and nothing more.

Excessive love of one or both parents as was true in the two cases just cited is the basic characteristic of many a prepsychotic history and others showing mal-adjustments who never reach state institutions. These excesses, it appears, result in such a fixation on the parent that attraction to the opposite sex and a successful marriage is impossible.

A frequent source of morbidity are the abominable ideas on the sex question with which the patient was surrounded when he was a child. It is a tabooed question in the home but freely discussed by the boys in the most vulgar terms. In the ignorance with which they approach the adolescent period it is no wonder that a great majority of boys and girls react with vulgarity or prudishness, the one as detrimental as the other to even the most indirect reference to sex matters. From these misunderstandings mental conflicts develop which furnish the basis of neuroses and psychoses and the genesis of many a criminal. Sexual perverts are very common in state hospitals as well as in the reform schools and penitentiaries.

The so-called Involutional Melancholias of which we see many furnish interesting histories. The outstanding characteristics of this type are fear, anxiety, depression with suicidal tendencies, very often without retardation sufficient to interfere with the securing of a good history once their confidence has been obtained. The background of their depression is usually the de-

lusion that they have committed some sin, very often the "unpardonable." In many of these I have traced the origin of their trouble back to some incident early in life. Reproof from mother or father followed some childish curiosity about the bodily functions; she is left to her own speculations or associates equally as ignorant, gets the impression that the menstrual function, other evidences of womanhood and everything of a sexual nature is a shameful thing, repressments follow that condition reactions of an asocial nature, they develop feelings of inferiority, are easily embarrassed, become hypochondriacal, victims of fears and obsessions, prefer to be alone and are very uncomfortable in company with those of the opposite sex. One patient told me that at the age of thirteen she became afraid of her own father, would go out of the room when she saw him coming and that all through her life for some reason unknown to her she was uncomfortable if a man was near her. This patient was finally convinced that her reactions in later life had been conditioned by erroneous ideas on sex questions existing subconsciously since early childhood and is now normal mentally and physically. These patients realize their inferiorities and do their best to cover them up and manage to get along fairly well until the menopause, some sickness, injury or mental stress precipitates the psychoses and then they come to the state hospital.

There are more hospital beds occupied by patients suffering with Dementia Precox than tuberculosis or any other disease, yet it is a condition of which so little is known outside institutions that not one case out of ten is diagnosed before commitment. The prepsychotic histories of these patients show difficulties in environmental adjustments in many from early childhood. They may struggle hard to make an effective adjustment but being unable to do so are thrust back to instinctive levels where they find a sense of security, so far back in some that a purely animal existence is led.

A great deal is said about heredity as a casual factor. Nearly all the patients to whom I have referred have psychopathic relatives and the cause of their trouble might be attributed to heredity without much criticism. If a boy's father is a criminal, values the esteem of others lightly and the boy develops similar traits, how much of it is due to heredity and how much to the atmosphere in which he was raised? The home takes the inmates in their most plastic and fluid state and molds them into disposition and habit before other influence can get at them. Reactions are acquired which subconsciously determine their reactions to similar situations later in life. The seeds of the psychosis, it appears in so many cases, resulting in a mal-adjustment causing commitment later in life were sown in early childhood by the defective home environment. I am aware of the detrimental influence of heredity and of the environment outside the home but my experience with the insane has led me to believe that these two factors have been greatly overstressed and too little importance is attached to the home influences. One case I shall report is illustrative of many.

Male, aged 30, loosely organized delusions of persecution, language

haughty and insolent, rebels against the rules of the institution, is bitter in his denunciation of treatment by parents, school and civil authorities. Our information is that he has been rebellious all his life. His father says that he was not always at fault, that he was obstructed in his progress at school by the unfairness of the teachers and his associates and that on several occasions it was necessary for him to show his teeth to obtain a measure of justice for the boy. The father is very familiar with the defects of the school, the federal, state and local governments, knows all about the tyranny of Wall Street, speaks lightly of the church and every other institution which intelligent and good people have found valuable. His remedies for all the social defects vary little from Bolshevism and the other morbid cults. He has been engaged in various enterprises but all have failed. The father's eccentricities suggest a defensive mechanism to compensate for an inner feeling of inferiority. He belongs to a class discussed by Dr. William A. White as follows: "Besides there are the cranks, who, with some pet scheme, closely approach the paranoic type and that host of ill-balanced, eccentric individuals who may be superficially brilliant but lack continuity of purpose and capacity for the continuous expenditure of effort in any one direction." The boy is legally insane because he has an exaggerated type of social inefficiency, so much inefficient that his conduct causes him to come into constant conflict with customs and laws deemed necessary for the good of society as a whole. The father may not be legally insane but he, too, is socially incompetent, has fallen out of civilization's line of march because the pace is too swift for him and the discipline too rigorous to be supported by his degenerate nature. Unfortunately the influence of these biological abortions is not limited to their own offspring though there it appears the most potent. The preaching of these mattoids make strong impressions on unwary listeners and dispositions similar to their own are developed in others outside as well as inside the home resulting in a social inefficiency which in some becomes sufficiently exaggerated to warrant their commitment to state hospitals or if not to a state hospital, to some punitive institution.

Psychiatrists and psychologists correlating the phenomena of the insane with facts such as those narrated in cases I have cited and studying them from a biological viewpoint have evolved a psychology explaining the mechanism producing the psychoses and neuroses and what is of greater importance a psychotherapy with an abundance of clinical evidence attesting its value in the treatment of these cases.

It is a subject too vast, of course, to be even outlined in anything short of a book. The writings of Sigmund Freud have probably commanded the most attention but both in Europe and the United States other able neuro-psychiatrists have contributed valuable thougths on this subject. The laity are reading the numerous articles appearing in magazines and books on this subject and are manifesting a keen interest in the therapeutic possibilities of this newer conception of nervous and mental diseases. The neurotic has been very much misun-

derstood, so much so that he rarely receives deserving consideration from his associates or even from his fellow sufferers. It has been the popular belief among the laity, and I fear some of the profession, that hysteria, hypochondria and neurasthenia are the equivalents of mendacity and malingering. If it is intimated to a patient that his trouble might be of psychic origin he quickly resents it believing that some discredible state is being imputed to him. This prevailing opinion is an obstacle that must be overcome before the necessary cooperation of the patient can be obtained and a healthy adjustment to his environment brought about.

Brill in his excellent book on Psychoanalysis in a summary of his chapter on the Psychoneuroses says, "In my discussion of the psychoneurotic mechanism I have attempted to show they are the result of a conflict between psychic streams of contrary tendencies, each striving for expression, the ultimate outcome of which is a compromise between them. Each has to make concessions, thus meeting the other half way, the the result of this mutual accommodation is then a dream or a psychoneurotic symptom which represents the fulfillment of a wish. The mechanisms are not conscious but rather unconscious processes. Unconscious, according to Freud, includes all those psychic manifestations of which the person is unaware. He actually does not discover them and they can only be brought to the surface by analysis. The unconscious is made up of repressed material, that is, the sum total of those psychic processes which have been crowded out of consciousness from the very beginning of childhood. Thus all the primitive impulses that have been curbed and inhibited with the development of the individual are in a state of repression. They form points of crystalization for the later repressions which mainly consist of erotic material. The later experiences are naturally not subject to the same amount of repression as the earlier and more primitive ones, hence some of them remain in what Freud calls the foreconscious."

Freud's idea of Conversion is explained by Brill as follows: "The patient wishes to know nothing about it (the painful pathogenic idea), he wishes to forget it. But as the repression, or forgetting, never succeeds completely, the pathogenic idea continues to strive to come to the surface and is constantly inhibited by the psychic censor. This struggle of two opposing forces results in a compromise. Each foregoes a part of the original demand, thus meeting the other half way, and the results of this mutual accommodation is then transferred into a hysterical symptom, usually by the process of conversion. In this manner the ego frees itself from opposition, the original painful idea or unattainable wish is forgotten and instead it becomes burdened with a memory symbol which remains in consciousness as an unadjusted motor or sensory innervation."

In this connection the researches of Cannon, Sherrington and others are interesting in that they have demonstrated that the great vegetative nervous system and through it the vital processes of the body are affected by mental conflicts either in consciousness or the re-

pressed material of subconsciousness.

The duty of care and treatment of the insane is accepted and practiced in West Virginia. Visitors are frequently heard to say they regret none of their taxes thus spent and express themselves as well pleased with the way the state is discharging its duty to its unfortunate wards. However, the state will never have adequate facilities for the care of the growing number of incompetents until it begins to insure itself against the future by preventative treatment.

I am sure that everyone who has had the opportunity to examine patients admitted to state hospitals have like myself been impressed time and time again with the fact that many of those who reach state hospitals after their psychoses have progressed to pernicious types when the problem is extremely difficult could have been relieved of their difficulty had they in the beginning been examined in relation to their whole environment, the difficulty been discovered and the individual helped to make an environmental adjustment. Much more time is given to the study of the physical side of the health than the mental yet the latter is just as important as the former. Too often I believe in both the young and the old the clinical problem of the psychosis and neurosis is confined to a study of the physical with, perhaps, some investigation of the present mental conflicts but no investigation of the past. I believe that other instincts are as capable of repression as the sex and are as capable of mischief. The examination should include all. A cursory investigation of the history of patients regarding these instincts yields but little. They are tabooed subjects and eliciting information from patients relative thereto is a laborous and painstaking process and may succeed only after several interviews extending over weeks or months.

Social workers and juvenile court psychologists analyzing environmental influences in the genesis of delinquents have accumulated an abundance of evidence that the loose, small talk of parents who disregard the conventions of society, has subconsciously created in the children a disregard for the law. Abraham Lincoln recognized the endurance of habits formed in infancy and when President sounded the following warning, "Let reverence for the law be preached by every American mother to the lisping babe that prattles on her lap." The trained social worker is also doing effective work in mental hygiene. Some of them with whom I have talked are fully aware of the possibilities and are well abreast of modern thought along this line.

We have reasons in West Virginia to expect the coming years to show swifter advance in mental hygiene than those of the past. A short time ago a mental survey of the state was conducted by the National Committee of Mental Hygiene under the direction of Dr. L. V. Guthrie, Superintendent of the Huntington State Hospital. Different organizations of the state have interested themselves in the valuable findings of this commission and in legislation looking towards the establishment of a State School of

Mental Hygiene which can serve as a central organization to initiate and carry to a successful conclusion a definite program for Mental Hygiene throughout the state. However, no program will be a success without the hearty cooperation of the general practitioner familiar with the principles of mental hygiene and the prepsychotic symptoms of a psychopathic personality. This kind of cooperation will prevent impairment of the usefulness of such an institution by an unjust prejudice such as is displayed by so many towards our state hospitals, a prejudice that will cause them to withhold psychotics until there is no chance to do anything for them. In this connection I shall say that a great majority of Dementia Precox patients are admitted to state hospitals in from two to ten years after the date of onset, after the period in nearly all of them of any therapeutic possibilities, the impossible is expected of us and consequently we are subject to much unjust criticism.

The defective child should not be kept in the regular school where his sense of inferiority is daily heightened by the unfavorable showing he makes with others. He will be far happier in a school adapted to his needs. Man naturally finds the greatest comfort in society of his own intellectual attainments; the same is true of children. This discomfort, this sense of inferiority, the result of abuse and humiliation from teachers, associates and parents because of slow progress in a school not adapted to his needs, is, I believe, the foundation of some psychoses which have come under my observation.

THE ROENTGENOLOGIST AND THE REFERRING PHYSICIAN; THEIR RELATION

Read Before the Eastern Panhandle Medical Society

By J. EDWARD HARRIS, M. D.
Winchester, Va.

I shall not consume your time by incorporating in this paper either an explanation or a discussion of what has been done with the X-Ray diagnosis and treatment of diseases but will confine my remarks to the ethical side of the subject—dealing with the relations that should exist between the Referring Physician and the Roentgenologist.

A little over a quarter of a century has now passed since Prof. Roentgen announced to the world his discovery of this unknown Ray.

During this interval of time there has been added to medical science a new art—one which in its own sphere of usefulness is not likely to be superseded.

It empowers the Roentgenologist to look beneath the surface and really perform what has been termed a living autopsy.

The Roentgenologist of today must be a man who possesses a broad knowledge of electrical currents of high tension—and for self protection as well as for safety to the patient, he must understand well the physical laws dealing with light waves as well as electrical waves, for without this knowledge as a foundation the most wonderful service that he may give will sooner or later result in disaster either to himself or some other person.

Everyday observation teaches us that the trend of the profession is

towards the fields of Specialism. The great science of medicine is becoming so enlarged and so far-reaching in its scope that special divisions of it are now necessary in order for one to attain even a moderate degree of perfection in his work.

Not many years ago you can recall that the physician who had dropped from the fold of general work and by preference sought the avenues of a specialty, was looked upon as a man of superior learning, possessing talents of unusual worth, but today the real man of superior ability is the general practitioner who can and does handle the whole subject with credit to himself and honor to the profession.

Naturally one can usually master one branch of the science more easily than he can the entire subject, yet on the other hand, without a general knowledge of the whole subject, one can never expect to become perfect even in any one special division of it.

The successful general practitioner should be greatly admired. Experience is the best teacher in all lines of work and for a specialist to have had a number of years in general practice will prove a great asset to his future success.

Physicians doing special work should above all others have the highest ideals of perfection before them and not be content with even a moderate degree of proficiency. The progressive age in which we live makes it encumbent upon us to exhaust our every effort to obtain the goal of a high medical standard —efficiency rather than commercialism should be the watchword.

The Roentgenologist occupies rather a unique position when compared to men doing work in other special lines—in that the Roentgenologist deals with his patient only through the referring physician; this should be true whether the patient presents himself voluntarily or is referred by his physician. While it is true that the patient under examination is entitled to a copy of the X-Ray examination as well as the opinion of the Roentgenologist, yet it is not only courtesy by scientifically proper for the last known attendant to have this information also. This creates naturally a moral obligation on both sides that is too important to be overlooked. The relations existing between the Roentgenologist and the Referring Physician should be of the most cordial nature and inspired by real confidence from both sides.

I am convinced that all medical ethics is founded upon one great principle and that is, the treatment that one gentleman deserves and should receive from another.

When a physician chooses to refer his cases to the roentgenologist for examination, he should have the full satisfaction of knowing that not only with the patient be dealt with conscientiously and scientifically, but that the physician back home will also get a square deal. The roentgenologist has a moral obligation to both patient and referring physician and how best to exercise it is a thing he alone can determine.

Within the past few years roentgenology has taken a permanent stand in the front ranks of the diagnostic field—and however true this may be, one should not forget that the Ray has its limitations of usefulness and by its use we should not expect it to reveal the things impossible.

If you will keep in mind the physical laws that govern all light waves you will understand that one is dependent upon the Ray penetration of certain tissues and material—in other words the density of tissues governs the usefulness of the Ray. The Ray-Penetration is reckoned somewhat upon the specific gravity of materials, heavy and light weight, hard tissues and soft ones.

The examination is oftentimes much handicapped by circumstances and conditions over which no one has any control. This in turn will often cause a delay in the report from the roentgenologist to the referring physician. These delayed reports seem to be the one thing that displeases the referring physician. It is true the report should be made as speedily as possible after the examination that the physician may in turn report the finding to his patient. Every roentgenologist should share this feeling of anxiety with the referring physician and patient; the roentgenologist should he be slow should receive some consideration for his painstaking procedure. For smooth sailing there must be real co-operation from both sides.

The value of the science and the usefulness of it to any given community depends largely upon how efficiently it is used and how much the referring physicians seek to make use of it.

The use of the Ray has now passed the experimental stage. No more is it looked upon as a new thing, but a real necessity in diagnosis.

The profession at large should acquaint itself more thoroughly with the X-ray and its uses—thereby be the better prepared to cooperate with the Roentgenologist—a large percentage of the profession have the most vague ideas as to its use and limitations. I do not know of any branch of our profession that is as scientific and as fascinating as is this branch and no diagnostic asset has more value than the X-ray when properly used in suitable cases.

The roentgenologist of today, to give valuable and dependable serice, must be a medical man well trained in his profession and possess a minute knowledge of anatomy—histology and pathology, for without this knowledge one can not make a dependable roentgenologist. It is true that the average layman can readily master the technique of laboratory operation and produce good films, but to be able to make the proper interpretation of the X-ray findings on the films is another thing.

In this lies the real scientific part of the work; poor and unscientific interpretation of the best films counts for naught in diagnosis.

We should strongly hesitate in subjecting a patient to an X-ray examination, unless by so doing we can clear up or help out on a diagnosis. It is simply a link in the great diagnostic claim; the examination should always have the possibility of a real value. In the hands of unscrupulous operators the ray can be used to great advantages for commercial purposes and I am told that in some localities it is being used to little or no advantage except to play upon the receptive minds of the neurotics and in turn receive good fees from those to whom little or no real service is given.

I am glad to say that the referring physician does not contribute to this class of high handed fakery but it is indulged in by those men who operate X-ray machines as side lines in order to hold their patients as they call it.

The general practitioner can still hold his patient if he will refer him to the proper kind of X-ray specialist.

Patients as a rule are referred to the roentgenologist for examination and not for treatment, therefore it would be a breach of medical ethics on the part of the roentgenologist should he ever suggest a line of treatment to the patient without first conferring with the referring physician.

After the examination is completed if it is found that the case will require surgical interference or any other line of treatment it is right and proper for the roentgenologist to communicate this to the referring physician and just who is to do the treating is wholly within the province of the referring physician and the patient. The roentgenologist should ever remember that the patient still belongs to the referring physician.

Now, when the referring physician receives the report of the examination from the roentgenologist and if it does not coincide with his views in the case, he should not, under any circumstances, make an unfavorable comment by word, act or deed to the patient relative to the report. Every roentgenologist will always welcome a conference with the referring physician relative to the merits of the report, and will be only too glad to prove the correctness of the same.

The roentgenologist should be looked upon as a consultant in diagnosis and he should so conduct himself and prove himself worthy of the confidence and moral support of every physician within his territory. The referring physician should demand prompt and efficient service from his roentgenologist and in return should give him his moral support.

The painstaking efforts of the roentgenologist should commend itself to the referring physician, rather than provoke him.

SHOCK AND ITS TREATMENT

Read Before October Meeting of McDowell County Medical Society

By ALBERT G. RUTHERFORD, M. D.
Supt. Miners Hospital, Welch, W. Va.

The importance of traumatic shock as a most serious complication attendant on a certain proportion of surgical operations, and very frequently associated with various wounds and injuries of the body, has made this subject one of extreme importance to all surgeons, and especially to this hospital where we see daily, shocked patients resulting from traumatic injuries.

I propose to discuss briefly the theories of etiology of shock, together with the symptoms, diagnosis, prophylaxis and treatment.

Shock, briefly defined, is a general bodily state following various surgical operations and traumatic wounds characterized by a persistent low arterial blood pressure, rapid thready pulse, pallor, sweating and shallow rapid respirations.

Primary wound shock refers to those patients in whom the onset

of the typical symptoms occurs suddenly associated with the constant low systolic blood pressure.

Secondary shock is confined to those cases in whom all the symptoms of shock manifest themselves only after a longer or shorter period of continuous hemorrhage, exposure to cold, complicating infections etc. All observers agree that the one common pathognomonic finding in shock is the persistent low systolic blood pressure. It has long been evident that the word shock is a loose and unscientific term — in reality it is nothing but exhaustion. We have come to look upon shock as an interference with the most fundamental mechanism of life—an interference with the mechanism for the transformation of energy.

The causes of shock may roughly be divided into two groups:

1. Comprising those in which an excessive energy transformation leads to an intracellular acidosis.

2. Including those which cause intracellular acidosis and interference with internal respiration without an excessive transformation of energy.

Dr. G. W. Chile of Cleveland, who has made an exhaustive study on the subject of shock, states that the most vital effect of shock is the impairment of the vasomotor mechanism. He believes that exhaustion of the cells in the brain, liver and suprarenal glands constitute shock. Crile has shown that definite histological changes can be demonstrated in the nerve cells of shocked animals, which they attribute to the afferent impulses reaching the nerve cells from stimuli induced by trauma, fear, emotions, etc. On this basis Crile has developed his theory of Noci-association or nerve blocking. Crile's theory is based upon the principle that every stimulus awakens an association. These associations may be injurious to the individual, this is termed Noci-association; or they may be of benefit to the individual or bene-association. The sight of appetizing food is a bene-association. The nerve centers are stimulated as if the food were actually being eaten and the "mouth waters."

All of life, therefore, is made up of bene- and noci-associations, and the constant effort of the individual is to increase the former and decrease the latter.

A word as to the predisposing causes of shock:

1. Age. The aged do not endure shock well. The risk is determined not by the age of the patient, but the age of his circulatory apparatus. When aged patients are subjected to injury, the immediate circulatory and other changes may be slight, but under these conditions the power of compensation or rebound is likely to be equally slight.

2. Sex. Before puberty there is little or no difference in the susceptibility of the sexes. After puberty, especially after the menstrual period, the female becomes less stable. The male grows more hardy. During the child bearing period the female develops an increased capacity for shock. During the menopause the female again becomes more susceptible to shock. After the period of developing menopause the female has entered upon an unbroken period of quietness and her resistance is increased. At this corresponding age, the male is carrying the greatest burden of his career, and from this period on

to the end he is not so good a surgical risk as a woman.

3. Time of Day: There is a marked daily variation in the process of metabolism of the body, beginning in the morning and ending in the evening. The vital processes are more active, reserve forces are at a maximum, the psychic factor at a minimum on rising in the morning. The most unfavorable time is from one to two A. M. Night accidents are likely to be more grave than equally severe ones occurring during the day. In lingering illnesses, more deaths occur after midnight than during the day.

4. Mechanical Causes: The most important factor in the production of shock is the mechanical —that is the mechanical stimulation of nerve tissue. The effect of trauma to nerve tissue is that of sending afferent impulses toward the centers. These impulses with their cumulative effect on the centers result in the production of shock.

Whatever the cause of shock may be, whether psychic, traumatic or toxic, the basic phenomena are the same. The individual is prostrated, his face is white and shrunken; there is no saliva, no gastric juice; the urine is scanty; the mind is dull and the temperature is subnormal. The behavior and appearance of a man is self diagnosed—"The picture is dramatical." Laboratory observations have shown that in shock, from whatever cause, the reserve alkalinity of the blood is decreased; that there are definite intracellular changes in the brain and in the liver; the electric conductivity of the brain is decreased, and that the electric conductivity of the liver is increased. Crile's theory that man is an electro-chemical mechanism interprets many of the phenoma of shock. It is based on the hypothesis that the body, as a whole, is an electro-chemical mechanism, the positive pole being the brain, the negative pole the liver, the connecting wires the nerves, the salts in solution, the electrolytic fluid in which the electro-chemical mechanism is immersed. Therefore, when either pole, i. e., the liver or brain is removed or destroyed the organism perishes. In accordance with this conception, exhaustion is the result of a diminution of the difference of potential between the poles, due to a decrease in the brain, which in turn results from a decreased difference in the potential in the constituent cells. When the difference in potential reaches zero, the organism is dead.

If this theory of conception is true, our efforts in treatment should be towards supplying these constituent cells with the two essential elements—water and oxygen; it should also emphasize the extreme importance of rest and sleep. This theory would suggest that the essential function of sleep is to provide a period during which the difference in potential decreased by the activities of the day is restored.

The diagnosis of shock is self evident. The most important symptoms of shock are those produced by an acute anemia. The blood pressure is lowered. The pulse at first is unusually accelerated. Sooner or later it becomes rapid until the last moments of life, when it may again become slow. The pulse wave is short and easily compressible. With the progressive shock the output of the heart, with each

beat, is diminished and with it there is a diminution of the force of its beat. As a result of the failing circulation the face is blanched.

Respirations are as a rule increased. Both the inspiratory and expiratory phases are quickened and the pause is lengthened.

Both the voluntary and involuntary systems are relaxed; the patient maintains the posture in which he falls; the reflexes are diminished, and in profound cases the voluntary muscular power is lost. The facial expression is typical—the face is shrunken, pinched and elongated and there is a languor in the expression. The eyes have lost their lustre and are sunk back in sockets. The patient has a staring expression—lips are pale. The lower jaw is drooping, the mouth partly open, the skin has a white hue. The fingers and nails exhibit a bluish color, the hands are cold and clammy.

Treatment: While the treatment of each patient should be individualized, nevertheless, the employment of protective measures is more or less routine, for in all cases, and especially in bad risk patients, the management of the case should be based on possibility and directed by probability, not by the physical state of the individual at that moment. In other words, anticipate your shock. This conception is comparable to the principle of preventive medicine—i. e., do in advance on "bad risk" patients all that you would do should this patient develop shock.

Therefore, in all traumatic injuries and in all surgical operations on "bad risk" patients, we should foresee the possibility of resulting shock, and treat the patient accordingly. The first and most important thing is to see that the patient's body is not unnecessarily exposed to cold. The body should be wrapped in warm woolen blankets, hot water bottles should be applied to the patient's body, hot drinks should be given by mouth, if patient is able to take fluids. The patient should be kept at absolute rest by the use of morphine. Morphine by hypodermic injection is of definite value in all traumatic cases, and should be given in all cases except those in which patients are suffering from depressed fractures of skull, in which condition the respiratory and cardiac centers are already impaired by the increased pressure on the brain and the morphine would act only to increase the already depressed respiratory and cardiac functions. Clinical experiences show that morphine does harm when patients are cyanosed, therefore cyanozed patients should never receive morphine. Morphine should be used to secure physiological rest in all traumatic cases except in cases suffering from intracranial pressure due to head injuries, and in cases where patient is cyanotic. In these latter cases, rest can be secured by the use of mild sedatives: Bromides, gr. 60; Chloral, gr. 30; Sweet Milk, oz. 2; given per-rectum.

In addition to establishing physiological rest to the body, it is as important to establish a physiological rest to the injured part of the body, if possible. That is if the patient is suffering from a fracture, it is necessary to put the fracture at rest by the use of first aid splints. This will cut down the abnormal stimuli coming from the injured fragments to the cells in the brain

—thereby cutting down the danger of shock. Attempts should not be made to reduce the fracture, or to repair the injury until all danger of impending shock is past. All repairs should be done under deep narcosis, if possible, or under nitrous oxide anesthesia. Clinical observations have shown that nitrous oxide-oxygen anesthesia is preferable and supplies the necessary oxygen to the cells which is a means of combatting shock. Crile has shown experimentally that under approximately equal trauma the changes in the brain cells were three times as great under ether anesthesia as under nitrous-oxide-oxygen anesthesia; that the fall in blood pressure is two and one-half times greater under ether than under nitrous oxide, and finally that the condition of the animal was worse after trauma under ether than after equal trauma under nitrous oxide oxygen. In the course of our surgical experience here, we have observed constantly the protective effect of nitrous-oxide oxygen anesthesia.

Drug therapy plays little part in combating surgical shock, except for adrenalin, and its action is only transitory. Crile has shown that the drug stimulants in common use, such as alcohol, strychnine, nitroglycerin and digitalis, not only did not prevent or lessen shock but that on the whole they pre-disposed to, or increased the shock. He shows that by the use of strychnine shock could be produced.

Probably the most important way of maintaining the normal hydration of the cells of the body is by means of forced fluids. This can be accomplished by forcing fluids by mouth or by giving large quantities of normal salt by infusion method—two or three thousand cc. of normal salt can be given under the breast every 24 hours. This will increase the amount of circulating fluids and thus increase the fluid pressure in the body. In cases of shock due to severe hemorrhage, early blood transfusion is indicated.

To summarize the treatment of shock is as follows:

1—Absolute physiological rest maintained by means of morphine or milder sedatives.

2—Maintain the normal temperature of the body by means of woolen blankets, hot water bottles, etc.

3—Maintaining the normal hydration of the body cells by supplying fluids by mouth, per rectum or subcutaneously.

4—Cases of severe hemorrhage, or in cases of acidosis following shock employ early transfusion of blood.

If urgent operation is necessary, in all cases, employ nitrous oxide anesthesia combined with local anesthesia if possible, in preference to ether.

SUPPURATIVE PAROTITIS

By T. E. VASS, M. D.
Bluefield, W. Va.

Doubtless you have seen cases of suppurative parotitis following some operation, but I think this complication sufficiently rare to warrant a report of four cases which occurred in St. Lukes Hospital following operations. Three of these cases followed abdominal operations and one followed an operation upon the frontal sinuses.

There are quite a few theories as to why this condition should fol-

low abdominal operations, and most especially those operations involving the appendix, uterus and Fallopian tubes. One theory is that during anesthesia the secretion of saliva is materially decreased and for several days thereafter, as the patient receives no food that requires mastication and therefore no stimulus is offered to the salivary glands. The lack of activity promotes the entrance of bacteria through the salivary ducts, causing infection from the mouth, and particularly is this true if the mouth happens to be the seat of any infection.

Another theory is that it might be due to metastasis, but it is highly improbable that a metastatic infection should show predilection for the parotid gland. Another theory is that it may be caused by trauma inflicted by the person giving the anesthetic, thereby damaging the gland where it turns over the angle of the jaw and lowering the resistance to infection during its period of lowered vitality.

I think the first and third of these theories seem the more plausible as it scarcely seems reasonable that a metastatic infection would select the parotid gland for its lodgment.

Not all patients developing this complication are surgical as the following series of medical cases will illustrate. Rallesten[6] and Oliver[7] studied one thousand cases of gastric ulcer treated at the St. George Hospital. These patients were all treated medically. Of the four hundred and seventy treated by oral starvation there were twenty-one cases of parotitis or four and one half per cent. While in five hundred and thirty patients who were allowed something by mouth there were two cases of parotitis or four tenths of one per cent. The author sums up the conclusions as follows, viz:

1. Secondary parotitis may complicate cases of gastric ulcer treated medically by starvation.

2. That it occurs ten and one half times more frequently in such cases of gastric ulcer than in cases allowed fluid by mouth.

3. That it is the outcome of the dry condition of the mouth and that mouth washes do not prevent its occurrence.

4. That it is more often unilateral than bilateral.

5. That suppuration occurs in about one fourth of the cases and that this constitutes a grave complication.

This condition usually manifests itself in three to ten days following an operation, and is usually ushered in by a chill, elevation of temperature, rapid pulse, and locally by pain, redness and swelling of the parotid gland affected. The infection is more often unilateral. The swelling gradually increases until the gland distends the capsule to a point where it is almost stony hard upon palpation. The pain is intense requiring opiates and hot applications to give the patient any degree of relief.

When the swelling reaches this point the capsule should be incised at several points whether there are any points of fluctuation or evidence of pus formation or not, and by so doing you tend to keep the infection confined to the parotid gland, thereby lessening the chances of rupture into the neck under the deep fascia, into the ear, into tissues of face, and also prevent sep-

[6]Rollieston: British M. J. 1919, May 29.
[7]Oliver: British M. J. 1919, May 29.

tic thromboses, to a certain extent, with their resulting septic emboli.

Usually if treated this way with the application of moist warm antiseptic dressings you can localize the infection at definite points which can be opened with a small round pointed artery forceps inserted into the former openings or with new incisions at the points of fluctuation. This procedure usually gives the patient almost immediate relief and the drainage rarely persists longer than a week to ten days. The resulting scars from the several small openings are hardly noticeable when healed.

It might be well to say a few words as to the preventative treatment. The patient may be permitted to chew gum immediately after reacting from the anesthetic to stimulate the salivary glands to activity, thereby increasing their vitality and resistance. Have the mouth as clean and free from infection as possible previous to the operation. Should the patient be a mouth breather it is a very good policy to saturate five or six layers of gauze with equal parts of water and glycerine to be kept over the mouth constantly to prevent dryness of the mucous membrane. In spite of all the precautions that may be taken you will see occasionally a suppurative salivary gland.

Fowler[1] reported eight cases following laparotomies. Five of these were operations involving the tubes and ovaries, one after an operation for extrauterine pregnancy, two after operations for appendicitis.

McKittrick[2] reports five cases, two operated for suppurative appendicitis, one after suture of the small intestines for perforation following horse kick in the abdomen, one following removal of pyosalpinx, and one following left sided colostomy for cancer of the rectum.

Blair[3] reports three cases, one following suppurative appendicitis and two following pelvic operations for inflammatory conditions.

Collins[5] reports eight cases of post-operative parotitis in six thousand one hundred operations. Three for obstructed bowel, two for ulcer of the stomach, one had pan-hysterectomy, two had peritonitis. Five of these patients showed bilateral involvement and three showed right gland only involved. Five died while three recovered. Of the five that died three had abdominal conditions that might have caused their death, but in two of the five patients the parotitis was evidently the cause of death.

The first of these cases occurring in St. Lukes Hospital was Mrs. E. S. age forty-one. About four or five days after an operation for removal of gall-stones and drainage of the gall-bladder, she developed a right sided parotid gland infection.

Second case, Mr. J. W., aged twenty-two, operated upon for ruptured appendix with drainage. Six days after the operation he developed suppurative inflammation of the right parotid gland.

Third case, Master C. M. aged, nine, operated upon for ruptured appendix. Upon the fourth day after the operation he developed a left parotid gland infection.

Fourth case, Mr. W. A. H., aged

[1]Fowler: Operating Room and Patient, Philadelphia, 1913, W. B. Saunders Co., Page 196.

[2]McKittrick: After Treatment of Patients, C. V. Mosby Co., 1923, Page 287.

[3]Blair: Medicine and Surgery, March, 1917, Page 34.

[5]Collins: Surgery, Gynecology, and Obstetrics, April 1919, Page 404.

twenty-seven, operated upon for depressed fracture of the skull involving both frontal sinuses. Ten days later he developed a suppurative inflammation of the left parotid gland.

This complication was ushered in with chill or chilly sensation, elevation of temperature, rapid pulse, and intense pain in the parotid gland affected.

Shortly thereafter the gland began to swell and in a day or two it was almost stony in consistency. Two of the cases were opened before definite pus formation and the other two wer eopened over the points of fluctuation. A small gauze wick drain was inserted in each of the openings and gauze saturated with boric acid solution placed over the gland, and on top of this a hot water bottle was kept more or less constantly. All of these cases cleared up in the course of ten to twelve days and rapidly recovered from both the complication and operation.

In concluding I wish to state that all of the patients who develop this complication do not terminate favorably as quite a few of them develop metastatic abscesses, necrosis and atrophy of the gland, meningitis, mediastinal abscess, from infection burrowing down under deep fascia of the neck. This is a grave complication and one that must receive careful attention.

I wish further to call your attention to the fact that the parotid gland is not the only one of the salivary group that may be involved but either the submaxillary or sublingual may be affected or they all may be involved at the same time, as the following review will illustrate.

Rhodes[4] reviews the reports of some forty cases in the literature and his percentages as tabulated from the forty cases are as follows, viz: parotid gland involved in fifty-six and four tenths per cent, submaxillary gland in thirty and seven tenths per cent, sublingual gland in seven and six tenths, and all the salivary glands were involved in five and three tenths per cent.

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[4]Rhodes: Lancet Clinic, 1915, 113, Page 211.

A FIVE MINUTE TALK

Delivered to the Graduates of the McMillan Hospital, at the Commencement Exercises, November 1st, 1923.

By MARY ELIZA REID, R. N.
Charleston, W. Va.

To the Staff of Physicians and Teachers, to the Members of the Graduating Class of the McMillan Hospital and to those here assembled to do you honor, Greetings:

Your Superintendent, Miss Sindlinger, has asked me to talk for five minutes to her class of graduates at Commencement tonight and so I address you in particular, my dear girls.

Miss Sindlinger evidently does not know that with the exception of an occasional talk to nurses at our club, I have never spoken in public. Her invitation was given over the telephone, and so I did not enlighten her, but later I took your Chief of Staff, Dr. McMillan, into my confidence and we compromised on "a brief paper," which he has kindly consented to read for me. My work is such that it may not be my privilege to be with you, much to my regret.

It is always a great source of pleasure to me to welcome to the ranks of our beloved profession those who have just completed training school days in our Charleston hospitals and are about to take up their chosen work, the care of the sick, in any one of its branches. From my personal acquaintance with and knowledge of the members of this present class, I feel sure that each one of you will make good in whichever branch of service you decide to enter, whether hospital position, private duty or the public health department. In each of these fields there is great need for such efficient, faithful, conscientious workers as I believe you young women to be.

It is characteristic of those of us who are growing old in the work to indulge in reminiscences. It seems to be characteristic of others too, besides nurses. Every few weeks in our Charleston newspapers we read of some one of our fellow townsmen who remembers Charleston twenty or twenty-five years ago, when there were only two or three stores on Capitol Street. Some one else who remembers when cows grazed on lower Kanawha street, etc. I remember seeing one of our prominent surgeons going to his office in a row boat. That was during the flood in 1899, and was not the usual method of getting about our streets.

Reminiscent of our own particular field, perhaps you will pardon something concerning early training school days. Twenty-five years ago there were no training schools in Charleston, and our trained nurses could be counted on less than the fingers of one hand. These nurses were called to nurse the sick all through the Kanawha valley and beyond. Much of the obstetrical nursing was done by "negro mammies." Some of our people, in cases of severe illness, called nurses from Cincinnati, Richmond and Baltimore.

Charleston's first hospital training school for nurses was organized October 1, 1898, and was known as the Thomas Hospital Training School. Pupil nurses at that time were more than difficult to obtain.

In 1904, this hospital and training school was taken over by the Charleston General Hospital (organized in 1900). The work of this school and of its nurses is well known to you and to our other valued hospital training schools organized since. The hospital training school referred to as organized in October 1898, came into being in order to care for those sick ones who entered what was at that time Charleston's only hospital. Looking out over the valley towards the river from the hospital entrance, there was scarcely a residence to be seen where now there are handsome homes as far as the eye can reach. In what is now the fifteen hundred block on Washington Street, there was a farm house where we used to buy butter, eggs and chickens for the hospital.

It was a privilege to undertake the difficult task of organizing and training young women in those early days in our first training school for nurses. As a vivid mental picture stands out the recollection of the delight exhibited by our first pupil nurse when she had finished her probation period and donned uniform for the first time. In the hospital corridor there hung a large full length mirror in front of which

she marched up and down as proud of her appearance as a young peacock. Suddenly she announced, "I have just got to run down over the hill to 'Father Job's' and let him see me with my uniform on, cap and all. I know you have told us that our uniform must be kept sacred to the sick-room but I am bound to strut out Brooks street just this one time with it on, because some of those old hens on our street said I would never stick to work long enough to get a uniform." She returned in an hour, and with her came "Father Job," just as proud of her first successful step in the nursing world as his daughter was. Just a month earlier this probationer had "gone over the hill," expecting that she had "spilled the beans for keeps," as she expressed it, and that the Chief of Staff would never let her return. An alcoholic, wild-eyed from a long debauch, had come to the hospital that morning and had begged to be admitted. Dr. Thomas had prescribed for him and on the label of his prescription was inscribed "a teaspoonful every hour until sleep is induced." Our senior probationer was placed in charge. Several hours later, we entered this patient's room to be greeted by the nurse with the report given in a stage whisper: "He is getting along fine. I woke him up a few minutes ago to give him his medicine." When her attention was called to the instruction on the label, the expression on her face beggars description. She did not tarry to find out the result of an unnecessary dose of chloral and bromide, but went home in a hurry for help and sympathy from "Father Job," who brought her back to start over again.

Many things concerning these early pupils might be of interest to you who have had your training so much later than this pioneer period. To you, looking forward, twenty-five years seems a long time. Looking backward, these events seem to have transpired but yesterday, and yet what a lot has been written in between 1898 and 1923.

The pupil who first entered training school had to give up the work in which she was so interested when only a little more than half through. An incurable disease, which came upon her beloved father, made this necessary. Then her own health failed and in December 1904 she passed away in the old hospital on the hill where she had done much faithful work. The nurse who had been her superintendent has been shut out of the work she loves best for many years. She went to pieces physically, "all at once and nothing first, just as bubbles do when they burst"—pardon the inapt quotation from the Deacon's masterpiece, "The One Hoss Shay," because that wonderful piece of mechanism ran "one hundred years to a day" while the human machines under discussion ran for only half the time that used to be allotted to the nurse who performed the duties of her calling faithfully and well.

The five mintues given me are more than up and I have to congratulate you on your three years of work well done. May I not also bid you welcome to the ranks of those who live to serve. Florence Nightingale, our patron saint of the nursing world, taught us the beauty of this life of service during her training school days in Pastor Fliedner's School at Kaiserworth; in her

work of devotion to the wounded soldiers of the Crimea and later on in her own hospital training school, St. Thomas, in London, England. Never forget her high ideals and never allow any one to make you feel even for an instant that the day of such ideals is dead. Every day during your traning school you have repeated the "Nightingale Pledge." It will be a part of your exercises as usual tonight, I feel sure. Renew this pledge day by day as you go out among the sick and suffering in the homes of the poor as well as in the homes of the wealthy. All of the qualifications of a good nurse are embodied in that pledge. It teaches you to be loyal, honorable, just; generous also to those in need. It tells you to be pure, to be upright, to be trustworthy and not a meddler in the affairs of others.

Follow in the footsteps of the Master who said, "Inasmuch as ye have ministered unto one of the least of these my brethren ye have ministered unto me." Stand for the right always.

With heart and hand and conscience clear, fear God and own no fear.

Yours for humanity.

GAS BONDS—AND THE MISTAKE OF TRYING TO JUDGE AN INDUSTRY AND ITS SECURITIES BY A CASUAL GLANCE AT SURFACE INDICATIONS

By SAMUEL O. RICE
Educational Director, Investment Bankers Association of America

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Time was when somebody made money by manufacturing bootjacks. Today there is no market for bootjacks and only a few, if any are made. A bootjack factory would be an extremely poor basis for an investment. Bootjack making is virtually an obsolete industry.

Many persons have an erroneous notion that the industry of making manufactured gas is somewhat tending to decreased production because of electricity. They conclude that because electric lighting has caused a great decrease in the use of gas for lighting homes and streets that the market for gas has been reduced. That notion comes as near being an absolute error as any notion could be. In the last 10 years production of manufactured gas in the United States has increased 100 per cent. In the same period consumption of gas for industrial purposes increased 1,000 per cent in the United States.

The manufactured gas business was scarcely ever more prosperous than now. The reason is because of the increased use of gas in industry. Modern heating processes in manufacturing use great quantities of gas, for gas has been found to be the most economical and efficient in heat treating processes of manufacturing.

Of course, the casual observer may not be blamed for erroneously concluding that electric lighting has cut in on the gas business. It looks that way on the surface perhaps, but that simply shows how dangerous are surface indications. The fact is that electricity really did the gas industry a service when it took the little home-lighting load off the gas conpanies and enabled the gas companies to use their capital and

energies for developing the larger industrial field. Electricity is cheap for power, but expensive for heating purposes. Gas is cheap for heating purposes.

Gas also has the advantage of diversified use. In periods of depression people do not stop using gas stoves. In the future development in the use of gas, men of long experience in public utilities confidently predict that gas will be increasingly used for heating in cities. Transportation of gas is much cheaper than transportation of coal. Not only are rail and water transportation of coal expensive, but local hauling of coal is becoming an expensive proposition in many cities. The indications all point to an increased use of gas for heating homes and business buildings in the large cities.

The foregoing is, of course, openly conjectural. It is, however, sound. The future of the gas business seems assured. Certainly its present situation is gratifying. I am led to write this because I have heard a number of surface-indication logicians object to gas bonds because electricity had almost usurped gas lighting in homes. One such person even advised a widow to sell certain fine gas company bonds her husband had left her. It was abominable advice, based on ignorance. The bonds in question were safe, high-yielding, very desirable.

Perhaps I may be a bit tiresome in repeatedly pointing out that an investor should go to some honest, dependable authority to learn the true worth of any investment he is considering. What sort of an investigation can any man make of an enterprise in which he contemplates investing? He can, if he has time, visit the factory, the electric plant, the gas plant or other enterprise whose bonds he is considering. He can look at them carefully, go over the books, and then what does he know? How can he possibly be competent to judge whether it is a good efficient plant, whether its different units are all right, whether as a whole it can produce and meet competition sufficiently well to pay interest or dividends? How can he know that the "corporate structure" is right? By that I mean how can he determine accurately that it has been financed most efficiently, that the right proportion of common stock, or of preferred stock, and of bonds has been judged? No man unless he is an investment banker can do that and usually investment bankers have engineers, accountants, attorneys and all sorts of specialists to help them do it.

In these articles I have determinedly endeavored not to try to persuade any one to buy any particular issue of any investment security. Insted, I have tried to show how complex a business is the making of sound investment securities. In my own little investments I never buy anything without talking it over with one or more investment bankers. I suppose I am in as good a position as any one could be to garner "inside tips" but strange as it may seem, I have found the much-talked-of "inside tip" virtually nonexistent. I have found, however, a world of sound, dependable information, frankly and openly given. As a result, if I may be pardoned a further personal allusion, I have never lost a penny in investments, either my own small funds or mon-

ey of two estates I have administered. It all depends on the investment dealer you select. I know several hundred honest and competent ones—surely any physician is good enough judge of character to select one and not put his money into schemes of crooked or incompetent promoters.

ANNOUNCEMENTS AND COMMUNICATIONS

The following communications from the Mingo County Society are published by request:

November 5, 1923.

DR. JAS. R. BLOSS,
Huntington, W. Va.

Dear Sir:

I am in receipt of a letter from Dr. M. L. Bonar of Morgantown who is connected with the Medical Department of the University of West Virginia, in which he states that he will be present at the regular meeting of the Mingo County Society on November 8th, at eight o'clock P. M. It is urged that all members be present as the regular program will be interesting in addition to Dr. Bonar's Post-Graduate Work which is interesting in that doctors can take post graduate work at home. This course is very fine and has proven a success everywhere.

The meeting will be held in the Williamson Hospital, Williamson, West Virginia, Thursday, November 8, at eight P. M. Come and bring someone with you.

Very truly yours,

R. F. FARLEY,
Secretary and Treasurer Mingo County Medical Society

November 5, 1923.

MR. ALEX BISHOP,
Pres. Mingo County Court.

Dear Sir:

At the request of the Mingo County Medical Association we have been asked to write you in regard to the appointment of a County Health Officer. We have a meeting November the 8th and would like to know just what the court will do so that we can make arrangements for some one to receive reports—contagious disease reports, etc.

The society is very anxious for a Health Officer and have elected Dr. R. F. Farley as Secretary and Treasurer. Any consideration that you show us will be appreciated very much. We have a membership of about fifty doctors scattered about over the county and they feel lost without someone to make reports to and keep them in touch with the State and A. M. A. Association, Southern Medical Association and various research and experimental stations and laboratories.

You will read page 93, November issue of the American Magazine, and page 1 of the October 27th Literary Digest which will readily show what advances have been made by the medical men in the past.

I am sending a copy of this letter to the West Virginia Journal of Medicine, both county papers and am filing one copy with the records of this office.

Sincerely,

R. F. FARLEY,
Secty. of Mingo Co. Medical Assn.

By the Committee:
Dr. R. A. Dalton,
Dr. G. B. Irvine,
Dr. R. F. Farley.

THE WEST VIRGINIA MEDICAL JOURNAL

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All original articles for the journal must be made to it exclusively. Communciations and items of general interest to the profession are invited from all over the state. Notices of deaths, removals from the state, changes of location, etc., are requested.

Our readers are requested to send us marked copies of local newspapers containing matters of interest to members of the medical profession. Name of sender should be given.

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FIFTH DISTRICT: H. G. Steele, Bluefield, one-year term; J. Howard Anderson, Marytown, two-year term.

SIXTH DISTRICT: R. H. Dunn, Charleston, one-year term; B. B. Wheeler, Beckley, two-year term.

A DANGEROUS HABIT

Recently several cases of a new drug habit have come under our observation. An article dealing with this matter appeared in a late number of the J. A. M. A. In this issue of our Journal is an abstract of this paper, appearing in the Medicine and Surgery section. Reference is made to the dangers attendant upon the continued administration of Barbital or Veronal.

The great trouble seems to be in telling our patients to secure some of these tablets and taking them as needed. They find some seductive pleasure in the "dreamy state" produced and, since there is no restriction placed upon the sale of this drug, it seems that quite a number of habitues are developing.

Personal experience has shown us that this seems a rather intractable habit to combat. The health and general mental condition of these addicts suffer early and markedly. This is, however, as a usual thing rapidly recovered from when the drug is removed and a suppor-

tive and tonic line of treatment instituted.

The habitual users of these drugs are a menace however, as they seem to lose all power of reasoning or of mental control. A few will become dangerous to themselves or others during the stage of intoxication preceeding their complete loss of sensibility and motility.

Our desire is to call attention to the increase of the use of this type of drugs among the laity; and to warn our profession of the dangers attendant upon advising the patient to secure them from the druggist on their own responsibility. Written prescriptions should be given always, and not refilled except upon our express directions.

OFFICERS—ET CETERA

During this month most of the component societies of the Association will elect officers for the ensuing year. The thought comes that we wonder if the members will give mature deliberation to the men they are to elect.

It seems sometimes that very little effort is made to select the men for these offices. It appears at times that no consideration at all is given to this vitally important question. Upon them depends the success of the next year's society work, and it should be imperative that due deliberation be given to the selection of those who will guide the affairs of our societies for the ensuing year.

Next year is going to be a most important one for the profession of our State. It must not be forgotten that a new legislature is to be elected. It is essential that those elected are men of vision and strength of character. Our profession simply must take a more important part than ever before in the primaries and subsequently in the general election. To do this our local societies must be "up on their toes" and working enthusiastically and doggedly, not for a selfiish reason, not that we may secure any favoritism, but for a position which will give to scientific medicine a voice in shaping legislation of transcendent importance to the welfare and health of all residents of our State. To have the members working enthusiastically we must have officers for them who are strong leaders, and who will work to bring about harmony in their societies, and who will lead whole heartedly in these matters.

Among the officers will be the members to represent the component organizations in the House of Delegates at the next annual meeting. It is most earnestly advised that especial deliberation be given to the selection of these. Level headed and cool men must be chosen, yet they must be those who can see ahead and plan for it.

You must remember that the matter of electing an Executive Secretary, the raising of funds by an increase of dues to carry on our work, et cetera, will come up for action. The whole future of our State Association and the accomplishment of its ideals for service to humanity, as a whole, and as individuals, is at stake.

It is called to your attention that this is the second mention made of Dr. Steele's motion to defer action upon this matter until the next annual meeting.

Please "hand-pick" your delegates. Then thresh out all of these questions that vex our profession, and send them to Wheeling pre-

pared to vote the spirit of the societies from which they come.

The gist of this is—BE SURE to pick the very best you have in timber and get decided upon all the different questions which may have to be settled. Never has it been so important as now that mature deliberation and judgment be exercised in choosing the officers to represent you.

DISEASES OF THE MIND

The older members of the Association will remember the efforts made by the Editor fifteen or more years ago to get facts before the profession of the State concerning aberrations of mentality. At that time he was connected with the State Hospital in Huntington as assistant to the Superintendent, Dr. L. V. Guthrie.

Very early in the period of his association with this institution came a realization of the lack of appreciation, by the general practitioners, of an early diagnosis of conditions of abnormal mental functions, and that if we in institutions were to do more good in the line of mental therapy, we must have the patients in the beginning of their illness and not when it was as a last resort that they were entrusted to our care. This was then, as now, a vitally pressing problem for those in charge of our institutions caring for this type of disease.

It is a matter of which we may feel somewhat proud, to know that the results of our institutions' efforts in psychotherapeutic work compares most favorably with that of any others of the country. West Virginia is most decidedly "on the map" in its psychiatric institutions.

During the past ten or twelve years there has been a marked change in the attitude of the general profession toward the work of our hospitals for mental diseases. We like to feel that in some small measure we were helpful in bringing this before our membership. At any rate we made efforts at each annual meeting to do so.

There is much yet to be desired along the line of co-operation by the men in general practice. In this issue of the Journal appears a paper read by the Assistant Superintended of the hospital at Weston. In this article Dr. Petit has surely stated the whole question succinctly. It is heartily recommended to you for your most earnest consideration.

WHAT THE U. S. PUBLIC HEALTH SERVICE DOES FOR YOU

When You Travel

Americans are great travelers; and special protection for them has recently been provided by health authorities, both Federal and State.

Railway and Steamboat Travel

No longer is polluted typhoid and dysentery breeding water allowed to be dipped from any creek or river, pool, or other source to be put into the "coolers" on railway trains or passenger boats. Not long ago such practices were chronic disease spreaders; now the Public Health Service will not permit any interstate commerce railroad or river or lake carrier to use any drinking or cooking water whose source has not been investigated and found satisfactory; and most States will not permit any carriers operating entirely within the State and therefore not subject to national author-

ity to do so. Up to June 30 last 3030 sources for railways had been examined, of which 1379 had been "certified" as satisfactory. For vessels 362 had been inspected and 90 "certified." Without such inspection a total of 1923 unsatisfactory sources would still be used as sources of drinking water.

Automobile Travel

If you travel in an automobile to the great national parks that lie in the western part of the country you will find the Public Health Service and the Forestry Service keeping close watch on the sanitation of hotels and automobile camps and insisting that you and all tourists shall leave them unpolluted and thus safe for the coming of other tourists.

Travel and Communicable-Disease Patients

Would you like to find beside you in the train a child that had, say, measles—or a disease even more serious? On the other hand would you wish to deny that child the right to get back to its home, where it could be lovingly cared for? Up to a few years ago either or both of these things happened — and they may still happen over a large part of the country, particularly the part west of the Mississippi River.

Until recently the national laws related only to persons suffering from one of the five great plague disease (plague, typhus, cholera, smallpox and yellow fever); and the State law differed in almost every State. Now the National and State health authorities and the transportation agencies have prepared a standard sanitary code which has been adopted by many States and will probably soon be adopted by most of them. This code forbids persons afflicted with the great plague diseases from traveling at all; but it permits sufferers from all other diseases to travel under conditions that will prevent them from being a menace to the health of other passengers but are yet not so hard as to incite sufferers to try to evade them and thus nullify the purpose for which the code was adopted.

Travel by Rail or Steamship Employes

All "travellers" do not travel by railroad nor even by river or lake steamboats. And all travellers do not travel merely as an incident of their lives. Some 3,000,000 persons in the United States travel as employes of the passenger or freight transportation service, at home or on the high seas.

These employes on railroad trains have the same health protection that passengers do; but those who "go down to the sea in ships" on American documented vessels or who serve as members of the coast guard, keepers of lighthouses, or who in other ways help to keep the flag on the seas have much more.

A century and a quarter ago Congress established the Public Health Service (under the name "Marine Hospital Service") chiefly in order to provide medical and surgical care to American seamen. For 80 years seamen were required to pay 20 cents a month for this. In 1878 this tax was doubled; but in 1888 it was abolished and since then all service has been free. A little more than a year ago a service was established by which sailors or American ships might obtain medical advice by calling up a Marine Hospital by radio. During the last year advice has been given in regard to appen-

dicitis, asthma, cramps, earache, eye injuries, heart disease, hernia, hiccoughs, influenza, infected teeth, malaria, opium poisoning, ptomaine poisoning, and swallowing broken glass. Many of the diagnoses were made on board ship; others were made by Service doctors ashore, sometimes after interchange of several messages. For instance, queries as to reports of cramps among the crew and later more cramps and worse cramps finally elicited the information that all the sick ate at a single mess. This known, treatment and prevention was definitely outlined. In some cases, in addition to emergency treatment advice, information as to the nearest Marine hospital is sent and preparation made for operation or other treatment at the earliest possible moment.

STATE AND GENERAL NEWS

OHIO COUNTY NOTES

DR. HARRY M. HALL, Reporter

Medical societies are just now changing places with the hibernating animals. The Ohio County Medical Society is just awakening and is only yawning ere it goes to actual work. We had Dr. W. H. Guy, of Pittsburgh, who has addressed this society before. His subject was the diagnosis and general aspects of the skin diseases that are on the borderline for neoplasms. He was quite frank about not having anything new, but he had good slides, is an entertaining talker and will undoubtedly save a couple of Wheeling citizens by once more emphasizing that it is up to the general practitioner to make his diagnosis early. Dr. Hupp, always energetic where the concer problem is concerned, discussed the talk of the evening in a capable manner. Dr. Howard T. Phillips closed the special men's discussion. Dr. Reed also added to the spirit of the meeting.

The meeting brought into action our new officers, Dr. Turner Morris, President, Dr. John E. Marschner, Secretary, Dr. W. H. Bond, Treasurer. These men are all seasoned practitioners, with the exception of Dr. Bond. Dr. Bond, recently married, has been in Wheeling several years with "Caldwell, Drinkard and Bond." Dr. Bond is one of your good all around men, affable, capable, and what is rather noteworthy always willing to help in anything for the good of his profession. When you look about you the men who are willing to help day in and day out are not as many as you at first blush supposed.

The above combination of men are representative of no particular branch of the profession here and are democratic and progressive, and the Society looks for a good program right through from them.

One of the main features in the life of the medical profession up here is the clinics held at the hospitals. They are really as interesting at times as the Society meetings, and a little more personal and intimate. At North Wheeling the staff is composed of Caldwell, President, Bibbers, Vice-President, Cole, Secretary, and J. A. Campbell, Asst. Secretary. At the Ohio Valley General, Hupp has been President for a number of years and expressed himself as having served enough so Schwinn was made President, Aikman, Secretary. At these clinical meetings there are confessions of error and reports of cases that are

the surest signs of the quality of stuff of which the medical profession is composed. When men are not afraid to get up before other men of their own calling and clearly state their mistakes, that is guarantee enough of their honesty, integrity and trustworthiness.

Some of you men who have been in the habit of seeing Dr. Frank LeMoyne Hupp in carefully attired "land clothes," are hereby notified that he has a nice new launch or yacht and in writing to him you may use Doctor or Commodore just as you see fit. He has just returned from Lake George and is strikingly younger than ever. We have asked Mrs. Hupp where the Fountain of Youth is located, and she merely smiles. We have gone into detail on this because so many Doctors we see—some a lot too young as well—who look too old for their years. We suggest a little conference with Doctor Hupp—or else come up in June of 1924 and follow him up into Lake George and tell the rest of us how to get there. Dr. Hupp is a living example of what a good vacation will do for you. Too many of us stay at home all year or run off to the cities when we have a week off.

The handsome new edifice at the corner of Eoff and 16th Street is now in the second story growth. This building as was predicted in these columns will be the new "Fulton Clinic." The Doctor inserted some wonderful manuscripts in the cornerstone which will serve for future sensations when the denizens of other years go after "King Tut" treasures. To help the creator of this new idea in medicine arrive at the proper conclusions will be Dr. Aikman, Asst. Surgeon and Colleague to Dr. Fulton; Dr. MacGregor, Medicine; Dr. Roberts, Urologist; Dr. Thornton, Pediatrics; and others yet to be announced. Whatever adverse reaction is supposed to be to this new adventure, certainly it is not articulate. Most all of the men look on with good sportsmanship to the idea which is rather another good sign that we progress. It is a new venture—all pioneers are to be respected. The Wheeling hospitals are full and have been so throughout the summer. It is very difficult at times to get a room, and reminds one of seeking accommodations in a hotel during a convention. In the makeup of rooms in hospitals here and elsewhere no one seems able to solve the problem whereby the man of moderate means can well be taken care of. As someone once said, I believe in the American Magazine—the poor and rich can find and get the best of hospital accommodations.

Dr. Ivan Fawcett spent the summer in Vienna, after a good recovery from his appendictomy.

Dr. Fulton is in Atlantic City.

Dr. Edward Phillips spent two weeks in Rochester.

Dr. Gilmore toured West Virginia and reports it as one of the best ways of having a good time.

Dr. Abersold tried this too.

We have a new pathologist at the Ohio Valley General Hospital, Dr. W. M. Shepp. He has made wonderful improvement in the laboratory and seems to be an able addition to our ranks.

From now on let nothing interfere with your coming to Wheeling in 1924. We have the other cities as setting a good example, and we are going to try and make you glad in every way that you came. Wheel-

ing has a good many faults, but not being a hospitable city is not one of them. Perhaps some of you have suggestions of what you would like —if so send them in early that all may feel that it is their celebration as well as ours. This does not apply to the 18th amendment, as the Federal Court is in session and many are called and many are chosen.

Dr. Hoge was in the Canadian woods.

Dr. Schwinn went to Atlantic City.

Dr. Armbrecht was elected for the six year term as President of the Wheeling Board of Education.

Dr. Linsz having passed through all the honors the Medical Profession can bestow, ran against a big field and was also elected one of the other four members of the Board of Education. However, he was not satisfied with this and took a train for Washington where he was selected to play the organ in the Scottish Rite Cathedral, and as I understand was made member of the Supreme Council of that body. There are practically no more worlds for him, although this reporter hopes President Coolidge will decide to take a hand in world politics and then send the urbane and political Dr. Henri to settle in just about one half hour all the allied difficulties.

Dr. Gregory Ackerman had the misfortune to break his arm. With true spartan courage—as well as with a few chosen remarks as the progress required—he bore his infirmities. He may have stopped his operative work but not his office practice, and speaking of office practice, it might be well to add that it is doubtful if anyone, anywhere has dealt with more people in the last thirty years than the Doctor. (This is no advertisement). It reminds one of the crowd waiting to get in a World Series, and is the envy of all young doctors. Dr. Ackerman is one of the most consistent workers we know of and we have often felt he missed being a great professor by not being in a college city.

The Academy of Medicine is at present in a quiescent stage. It had its building bought — or so it thought, but it learned this one thing if no other that if you buy property from the owner of a building when a real estate sign is in front and someone else buys it from the real estate firm at the same time—the latter WINS.

Just one word or two more. At this time of the year you run against the man who never—no never—or well hardly ever reads the State Journal. He reads the big journals, but he doesn't waste his time on small fry like it. He never goes to the State Society meeting, but he does run over to the American Medical meeting or perhaps the prize fight. He never goes to his County Society meeting because he has to sit and listen to fellows talk who in a measure don't know as much as he does about medicine or surgery. He believes fellows get up and advertise themselves in County Societies, and he knows they by no means have as much to do as he has. Of course if a "big man" comes he drops in but believe him he dodges out as soon as the little fellows start to talk in rebuttal. What if everybody would suddenly take that notion, can you sit and imagine what it would be like?

The State Journal has an editor, but he is supposed to edit what others send in. The responsibility of what a State Journal really is practically rests on the shoulders of every man in the Society. If it happens not to be big it is because there are too many slinkers. There is no use denying it, some of these men who scoff at their State Journals are the very men who could make it better—why don't they help? Another thing unless we misunderstand the J. A. M. A. will not help you in the local problems, which, if we all worked would make us so much better acquainted. The same is true of the State Society. As to the local societies the number who stand back we believe is becoming conspicuously less. Here in Wheeling during the season of 1922-23 we heard men get up who have heretofore seldom been on their feet and give discussions not surpassed anywhere. Ninety percent of any medical society can individually give fine accounts of themselves if they only will to help and then do it.

The Hospital Conference of the Clinical Congress of the American College of Surgeons at the recent session in Chicago approved the following list of West Virginia hospitals: Charleston General Hospital, Charleston; Kessler-Hatfield, Huntington; the Ohio Valley, Wheeling; St. Mary's, Clarksburg; Welch No. 1, Welch; Wheeling Hospital, Wheeling, and Coal Valley, Montgomery.

Complimentary mention on a list of West Virginia hospitals with from 50 to 100 beds follows: Beckley Hospital, Beckley; Bluefield Sanitarium, Bluefield; Cook Hospital, Fairmont; Davis Memorial Hospital, Elkins; Guthrie Hospital, Huntington, and McKendree Hospital No. 2, McKendree.

The report is based on a detailed survey made by experts through a personal investigation of all general hospitals of fifty beds or more in the United States and Canada.

A class of four nurses received diplomas at the fifteenth annual commencement of the McMillan training school for nurses held November 1st at the Elks Club, Charleston. The class was composed of Miss Roe Darby, of Canada, Miss Mae Bannister, Miss Alberta Mae Knapp and Miss Nellie Calle, of West Virginia.

One of the features of the exercises was the presentation of a loving cup to Mary Eliza Reid in recognition of 25 years of service in the city as head of a training school and registry. The loving cup was given by the physicians of Charleston and was presented by Dr. G. C. Schoolfield. It was inscribed as follows: "To Mary Eliza Reid in recognition of twenty-five years of service to humanity, 1898-1923. Presented by the physicians of Charleston, West Virginia."

Miss Reid opened the first training school in the city under the direction of Dr. Thomas in the Thomas Hospital now the Charleston General, in 1898. In November of 1907 she began her nurse's registry which she still operates.

Nearly 300 persons were present for the exercises, including doctors and nurses from every hospital in the city. Following the program

refreshments were served and dancing enjoyed until midnight.

Leading a field of 70 contestants, Dr. George M. Lyon, of Huntington, W. Va., was acclaimed champion golfer of the Southern Medical Association, at the difficult Columbia Country Club course, Washington. Dr. Lyon obtains possession of the McLean Post cup until the next convention when it is again put in play.

A number of prominent Huntington physicians attended the meeting of the Southern Medical Conference at Washington, D. C., Nov. 12-15.

Included in the number of those who attended the meeting were Dr. T. W. Moore, Dr. W. D. Hereford, Dr. Byrd Hunter, Dr. J. C. Matthews, Dr. F. O. Marple, Dr. L. T. Vinson, Dr. A. K. Kessler and Dr. George Lyon. Drs. Moore and Hunter read papers at the meeting.

Dr. J. D. Turner, 49 years old, of Chapmansville, W. Va., was killed in an automobile accident recently on Big Creek as he was returning to his home from a visit to a patient.

There were no eye-witnesses to the accident, Dr. Turner's dead body being found on the road in the wreckage of his automobile. It was believed his car skidded off the road about three miles from Chapmansville, turning completely over and pinning him underneath. His neck was wedged tightly against the back of the seat, leading to the belief that he was choked to death.

A passerby on the road came across the wrecked car and found Dr. Turner's still warm body jammed helplessly between the ground and the wreckage.

Dr. Turner was a physician in Chapmansville for twenty-two years and commanded a large country practice. He is survived by his wife and children, Edward, Pierce, Fay, Joe, Cynthia and Charmeon; his father and mother, Captain and Mrs. William Turner of Washington, D. C., two brothers, Roscoe Turner of New York and Wirt of Valparaiso, Ind.

Dr. T. W. Moore of Huntington, member of the Council of the Southern Medical Association, attended the meeting of that body at Washington, D. C. Nov. 12 to 15.

Born to Dr. and Mrs. J. W. Ferguson, of Westmoreland, a daughter.

Dr. and Mrs. G. D. Jeffers of Parkersburg have returned from Washington, D. C., where they attended the Southern Medical Association.

Dr. Valentine Ughely, a native of Budapest, Hungary, has recently been added to the staff of the Weston State Hospital.

Dr. C. L. Holland, of Fairmont, has been taking post-graduate work in Pediatrics at the Children's Hospital at Philadelphia. He attended the meeting of the Southern Medical Association in Washington on his way home.

The first joint meeting of the Cabell and Kanawha County Societies was held in Huntington, November 8th. A large number of the members of the Kanawha Society were in attendance.

Dr. Alfred Friedlander of Cincinnati delivered an address on "Myocardial Degeneration, Clinical Types, Recognition and Management," which was a masterpiece. He was followed by Dr. John H. Neff of the University of Virginia, Charlottesville, who talked upon "Ureteral Calculi."

After the conculsion of the scientific work a banquet was served in the dining room of the Hotel Farr.

One hundred and forty were in attendance. There were visitors from Gallipolis, Ironton and Portsmouth, Ohio, and Ashland and Catlettsburg, Ky.

It is planned to have these joint meetings at frequent intervals. The completion of the paved road between the two cities makes it possible for the members to attend the meetings by motor.

A SIDE LIGHT FROM THE SOURCE ON OSTEOPATHY

In 1874, Andred T. Still founded osteopathy. He tells about it in his autobiography. He tried to get started in Kansas, but the powers at Baldwin University refused to permit him to expound his doctrines at that institution. In May, 1875, he was in Kirksville, Mo. It appears that he rather anticipated having a hard time, and he tells that his wife promised to stand by him and help him fight his battle. At this point in history he presents a little incident which we have thought worth quoting:

"I did not tell her (his wife) that when I came to Missouri I found a letter addressed to my brother Edward, from brother Rev. James M. Still, of Eudora, Kans., stating that I was crazy, had lost my mind and supply of truth-loving manhood: I read it and thought, as the eagle stirreth up her nest, so stir away, Jim, till your head lets down some of the milk of reason into some of the starved lobes of your brain. I believed Jim's brain would ripen in time, so I let him pray, until at the end of eighteen years he said:

" 'Hallelujah, Drew, you are right; there is money in it, and I want to study Osteopathy'."

We acknowledge that we are responsible for the italics.—Jour. A. M. A., Sept. 29, 1923.

CURING PRINCE DON JAIME'S DEAFNESS AGAIN

Prince Don Jaime, second son of the king of Spain, has been deaf since his birth. More than three years ago the "International Feature Service," which furnishes lurid and sensational "features" for the string of Sunday newspapers that it serves, carried a full page article detailing in typical Sunday newspaper style the alleged cure of the young prince by a London "bone-setter." According to the article, the bone-setter explained that the young prince's affliction was "caused by displacements of the atlas and axis bones of the neck" which, he went on to state, "produced a pressure on the great auditory nerve to the ear and caused deafness." The bone-setter, the story ran, "corrected this displacement" and "the boy immediately began to hear." At the time, The Journal investigated the matter and found that the claims were sheer buncombe. Soon after this article appeared, osteopathic colleges and individual os-

teopaths reproduced it in full and claimed that the wonder-working Londoner was a member of their cult. Chiropractors did the same thing. This was in 1920. Now, in August, 1923, the papers of the country are carrying news items to the effect that one "Dr" Curtis H. Muncie, a Brooklyn osteopath, has just returned from Europe where, according to earlier newspaper reports, he had been called to treat Prince Don Jaime. According to the report in the New York Times, Muncie, after a manipulation, cured the prince of his ailment. From the same source we learn that Muncie declared that the lad's deafness was due to "a state of complete deformity" of the eustachian tubes, and Muncie's treatment was simply that of "reconstructing the eustachian tubes"—a mere bagatelle for an osteopath. Presumably, we may look for another advertising campaign on the part of osteopaths and chiropractors detailing the marvelous results that these gentry are able to obtain. Meanwhile Prince Don Jaime is still deaf!—Jour. A. M. A., Aug. 11, 1923.

COUNTY SOCIETY REPORTS

October 11th, 1923.

A regular meeting of the Cabell County Medical Society was held in the Grill Room of the Farr Hotel on the evening of October 11th, the President, Dr. R. J. Wilkinson, presiding. It was by far the largest attendance and most enthusiastic meeting that has been held for some time, due to the presence of three out-of-town speakers on the program.

The minutes of the previous meeting stood approved as read.

Dr. Hawes moved that the regular order of business be suspended and that we proceed at once to the scientific program. This motion was seconded but later withdrawn to allow the reports of committees and to transact urgent business.

The Treasurer's report was accepted as read.

Dr. J. A. Guthrie moved that a committee of six be appointed to appear before the Council of Social Agencies to ask for $20,000.00 to be used for the hospitalization of charity patients in this city. The motion was carried with the appointment of the following committee: Dr. J. A. Guthrie, Chairman, Drs. Guthrie, Kessler, Rader, Vest, Biern, Marple, Tom Moore.

Dr. Bloss moved the following amendment which was tabled to lay on the table two weeks to conform with the By-Laws of this society, "That the 1924 dues be $10.00 per annum in addition to the dues of $5.00 to the state society."

Drs. Thomas and Hoitash were admitted to membership and were welcomed by the society, both responding with a few appropriate remarks.

Dr. Vest delivered a short address of welcome to the visiting Doctors on behalf of the society. Dr. T. W. Moore moved that the courtesy of the floor be extended the visiting Doctors which was unanimously granted.

The Secretary then introduced the visiting Doctors and presented them to the Society.

Dr. J. M. Emmett of Clifton Forge, Virginia, delivered a very complete and interesting paper on "Injuries of the Kidney," being fol-

lowed by Dr. Wm. B. Porter, of Roanoke, Virginia, who read a paper on the "Diagnosis of Exophthalmic Goitre." The sceintific program was brought to a close by a paper by Dr. J. T. McKinney of Roanoke, Va., entitled "The X-Ray Diagnosis of Diseases of the Gastro-Intestinal Tract," which was illustrated with lantern slides. All three of these papers were productive of a lively discussion and were very instructive.

Following the papers the Society was the guest of the C. and O. Hospital staff at an excellently served buffet lunch and smoker. Attendance 130.

OSCAR B. BIERN, Secretary.

October 25th, 1923.

A regular meeting of the Cabell County Medical Society was held in the Ball Room of the Hotel Frederick on the evening of October 25th. In the absence of both the President and Vice-President, Dr. T. W. Moore very capably presided over the meeting.

Dr. J. A. Guthrie, as a Chairman of a committee that appeared before the Council of Social Agencies, reported that he had appeared before the budget committee and that some time would elapse before the final report could be given on the action taken, but felt that they had received the proposition favorably. The report was accepted and the committee continued.

Drs. Bloss and Bobbitt gave a final report on the Anti-Chiropractic committee, the former as chairman, the latter as treasurer. Dr. Bobbitt reported a balance in this special fund of $46.00, and he then moved that this sum be turned into the general fund. Motion seconded and carried.

It was then moved that the committee's report be accepted and that the committee be discharged with thanks. Carried.

A further motion was made that the Secretary be instructed to write the lawyers and to thank them for their kindly efforts on behalf of the society. Carried.

The resolutions on the death of Dr. C. R. Enslow were read and accepted, a copy of which is attached for record, and a copy having been sent to the family.

Whereas: Dr. C. R. Enslow's earthly labors have ceased and he has gone to his last rest,

Be it resolved: That the members of the Cabell County Medical Society express their appreciation of the talents of this strong, kind, silent man and feel deeply the loss of his valued friendship, wise counsel and kindly sympathy which he gave to his confreres so unstintingly. That we hope to emulate his unselfish devotion to and tender consideration of his patients regardless of their station in life, and that we feel that it has been a privilege to have known and associated with this doctor and gentleman of the old school.

And further be it resolved: That a copy of these resolutions be presented to the bereaved family.

And further be it resolved: That a copy be spread upon the minutes of the Cabell County Medical Society.

T. W. MOORE, Chairman,
W. E. VEST,
J. E. RADER.

Dr. Miller of Denver, Colorado, was present at the instance of the Secretary to receive the apologies of the society for a letter previously written him asking him not ao appear on the program as he was brought here by the Radium Products Laboratories, this concern having circulated a letter about his appearance that was unethical. Dr. Miller explained that he had no interest in this concern, was an active practitioner in Denver and a member of the county and state societies. Representatives from the concern mentioned above also appeared and corroborated the statements of Dr. Miller. On motion the apologies of the Society were given Dr. Miller and he was asked to read his paper. This he did; no discussion followed.

Dr. C. G. Willis read a very interesting paper on "Arterial Hypertension," which was discussed by Drs. Vest, Bloss, Kessler and Guthrie, Dr. Willis closing.

Dr. J. E. Hubbard as chairman of the "Pep" committee made the following recommendations: Secure a new meeting place; increase dues to $10.00 per year; new members be required to read a paper on admission or to pay a fee of $10.00; discussion of papers be limited to five minutes for the first two and to two minutes for those who follow, same to hold good for business sessions, and that no member be allowed the privilege of the floor twice except to ask a question; that the program for the next two meetings be announced at each meeting and designate who is to open the discussion; continue social side with frequent smokers and outside speakers; that notices of meeting be sent at least three days before the date of the meeting, in sealed envelopes and as first class mail. The committee requested that they be allowed to make further suggestions at a later date regarding some other suggestions now under advisement. The committee's report was tabled to allow the completion of the report.

Attendance 32.

There being no further business the meeting was adjourned.

OSCAR B. BIERN, M. D.,
Secretary.

November 8th, 1923.

A regular meeting of the Cabell County Medical Society was held in the Grill Room of the Hotel Farr on the evening of November the eighth, the President, Dr. R. J. Wilkinson, presiding.

Owing to the presence of a large number of out-of-town guests, it moved that the regular order of business be dispensed with and that we proceed with the scientific program. Motion seconded and carried.

As this was a joint meeting between the Cabell and the Kanawha County societies, the President in a few appropriate words greeted the Kanawha Society and turned the chair over to Dr. Barksdale, the president of the Kanawha Society, who responded to our greeting.

Dr. Alfred Friedlander of the University of Cincinnati delivered a most excellent paper on "Myocardial Degeneration, Clinical Types, Recognition and Management." This was one of the best papers ever presented before a local society and was provocative of a lively discussion.

Dr. John H. Neff, Associate Professor of Surgery at the University of Virginia, followed on the program choosing for his subject "Ureteral Calculi" being a resume of his series of cases at the University of Virginia. The paper was followed by the showing of lantern slides illustrating the salient points of his lecture.

At the close of the scientific session the meeting adjourned to the dining room where an excellent banquet was served to about seventy-five persons. The attendance at the meeting was 140.

OSCAR B. BIERN, M. D.,
Secretary.

Bluefield, W. Va.,
July 26th, 1923.

The Mercer County Medical Society met in the City Hall at 8:35 P. M. with Dr. John Bird in the chair.

The Secretary having been away from home and no record made of the June meeting, the minutes of the last meeting was dispensed with.

Under clinical cases Dr. Rogers mentioned in his talk that Dr. Julius Friedenwald of Baltimore, Md., was now pumping the duodenum and gall-bladder. Dr. Kirk related a case of a carcinoma of the eyelid treated with plasters and radium. He recommended radium more highly in these cases. In this particular case the radium was used twice, six weeks apart, the swelling went down, it was almost healed, the patient could get the eye opened and eye itself did not seem to be involved.

Dr. Steele told of seeing blood transfusion with the paraffine glass tube method at Crile's clinic in Cleveland.

Under the regular program Dr. Hoge gave us a talk on insulin as he had learned while working under the leading men on this subject in the Presbyterian Hospital in New York. He explained how some of the cases of diabetes were benefitted from this treatment while others were not. He said in this hospital they seemed to get best results in children. In tuberculosis cases it is a bugbear. By the use of insulin one is often able to build up his patients. In some cases you can feed them any amount of food. In Boston they are underfed while in New York they have reached a happy medium.

Dr. Rogers discussed this subject briefly then Dr. Hoge closed the discussion.

It was decided by the society that we hold our annual picnic at Glenwood Park in August.

Adjourned at 9:45 P. M.

H. G. STEELE, Sec.

Glenwood Park, Bluefield, Princeton Road, W. Va., Aug, 22, 1923.

The Mercer County Medical Society held its annual picnic at Glenwood Park in the afternoon of August 22nd. Despite the cloudy and inclement weather there were quite a number present, both the doctors and their families, and all had a delightful time.

Immediately after the picnic supper the President called the society to order.

The reading of the minutes of the previous meeting was dispensed with.

Applications were received from the following physicians in Mercer county: Dr. M. N. Mastin, Goodwill, W. Va.; Dr. W. B. McCutchen, Princeton, W. Va., and Dr. John McGuire, Bluefield, W. Va.

It was decided to have the next meeting at Mrs. Strum's on the Bluefield-Princeton Road.

The Secretary was authorized to pay the picnic bills.

Adjourned.

H. G. STEELE, Sec.

The Mercer County Medical Society held its regular monthly meeting at Mrs. C. H. Strum's on the Bluefield-Princeton Road, Sept. 27, 1923.

A very delightful good old fashioned country supper was served at 6:30 P. M. with 23 present including some of our lady folks.

The society convened in one of the rooms of Mrs. Strum's home at 8:10 P. M.

The reading of the minutes of the previous meeting was dispensed with.

Under clinical cases, Dr. W. C. Slusher reported a patient of his having but one kidney with hydronephrosis and typhoid fever. A leucocytosis and Widal were present. The appendix was removed and the patient got well. Dr. W. H. StClair reported a case of abdominal tumor, an ectopic kidney, a Widal was positive. The patient got well. Under discussion of these cases, Dr. Hoge said they at St. Luke's Hospital had disbanded the idea of the Widal being very valuable in many cases. It was impossible to get a positive blood culture until after the eighth or ninth day. Dr. Slusher said he makes a diazo test in all suspected cases of typhoid and believes it can be relied upon. Dr. John Bird reported a case supposed to be typhoid. It was not typhoid. The patient recovered and still the Widal was positive. Dr. Peery reported a case of a cataract in a man whom he operated on, the wound closed, conjunctivitis developed and a muco-purulent discharge appeared. It seemed he was using argyrol, silvol and atropine. He stopped the atropine and used the silvol and the patient recovered. Our visitor, Dr. Gordon, gave us a little talk along this line which was much appreciated. Dr. Hoge told us of a woman who had diabeic coma for several days. She had not been able to be aroused for 36 hours or more; improved considerably after treatment with insulin. Dr. C. T. StClair reported a case where a woman had been blind for 6 years (of the right eye); she had a chronic antritis which was drained of a lot of foul pus through the canine fasso and she recovered with resoration of sight to the blind eye.

After Drs. Kirk, Harloe and Hoge as censors for the evening reported favorably on the applications of Drs. Mastin, McCutchen and McGuire, they were duly elected members of this society.

Programs for the October, November and December meetings were read. It was decided that we have our next meeting at the Robbin's Rest Tea Room.

Adjourned at 9:30 P. M.

H. G. STEELE, Sec.

Robin's Rest Tea Room,
Bluefield-Princeton Road,
October 31st, 1923.

The Mercer County Medical Society held its regular monthly meeting at the Robin's Rest Tea Room.

A delicious supper was served by Mrs. Crawford to 23 of us including some of our lady folks.

The society was called to order by the President at 8:15 P. M.

Under clinical cases, after the invitation by the President to report a clinical case had gone around the room, the Secretary reported a case of irreducible-omental inguinal hernia operated on. Then the following doctors reported some very interesting cases: Dr. Hare, a femoral hernia in a baby; Dr. Hoge, some strangulated herniae in infants; Dr. Vass, a case or two of epigastric hernia, saying these are frequently overlooked, having the symptoms of stomach trouble; "remember this and you may see more." Dr. Carr gave us a very interesting talk, as he always does, on double herniae where small pillows were used as pads and when the patient attempted to push one of them back it ruptured. He talked at length on how they used to practice medicine 50 years ago. He pointed out the advantages the doctor today has over the one of fifty years ago, etc. Dr. Carr is one of our most entertaining talkers and when he addresses us he always says something worth while.

Dr. Hoge told us of three children, ages 6, 12 and 14, he had under insulin treatment for diabetes who were doing well.

Dr. Steele asked advice in a case he had seen of a woman with prolapsed hypertrophied kidney, an enlarged thyroid and rapid, irregular heart. Drs. Vass and Hoge closed the discussion.

Dr. Reynolds of Bluefield presented his application.

The President called for advice as to how the members thought the society could be built up and each gave the following suggestions:

Dr. Gordon, a visitor, said if each member does not take an interest, the chain is as weak as its weakest link. He thought a specialist's meeting would create interest and invite some one of great reputation to come here and read a paper or deliver a lecture.

Dr. Vass said make the meetings interesting so the members will want to go. Get up some little opposition; stir up their dandruff and you will get them to come.

Dr. Littlejohn said we should have some definite object in view. The different civic organizations of Bluefield always have some definite object in view when they attempt anything. Every member is to do his part. The society can not be run by the work of two or three members. The programs should be made out some time ahead and a substitute provided and then when the one on to read a paper cannot be present the substitute should be expected to take his place. The work ought to be divided among all the members.

Dr. Rogers said one of requisites of this society should be that every member attend each and every meeting.

Dr. Hoge said we are living on our past reputation, now just how long that will last we can not tell. He suggested that we reciprocate with the medical societies of Roanoke, Va., Bristol Va., and Huntington, W. Va. Invite them to come and put on the program for our society if we agree to put on one for them.

We want outside doctors to come here.

Dr. Hare: We haven't been the same society since the eighteenth amendment went into effect. What do we as individuals put into the society? We get out of it just what we put into it. How interesting can I make it for the other fellow? Too much of self, lack of charity.

Dr. Carr: At one time Dr. Bee and I did a great deal of the practice in Mercer, Mingo and McDowell counties. Now we have a line of specialists, you are jealous of each other, you do not want to help the other fellow. Get together you bright young men and go forward.

Dr. Steele answered many of the questqions asked and said many of these suggestions had been carried out from time to time without the proper support. He insisted that at the coming election would be the time to elect some one else as secretary as the present secretary was not able to get the proper support to make our society a success. We have had one of the best societies of the state and there is no reason if we elect the proper man for this important position, that we can't be restored to our old place in the ranks.

Dr. Rogers made a motion which was seconded and carried unanimously that we hold our next meeting and have our annual banquet in the new West Virginia hotel.

Adjourned.

H. G. STEELE, Sec.

MEDICINE AND SURGERY

X-RAY AS AN ADVANCE IN THE TREATMENT OF IMPAIRED HEARING

A preliminary study by J. J. Richardson in a paper read before the American Society of Electrotherapeutics, Atlantic City, N. J., September 2, 1923.

The paper is from the pen of an Oto-Laryngologist and not a Roentgenologist. Richardson first calls attention to the fact that impaired hearing represents a medico-economic entity of vast proportions and which has hitherto largely defied the skill of the otologic practitioners. He thoroughly goes into the pathology, etc., of the conditions existing, too numerous to enumerate in a short review. He gives analysis of about 600 cases with approximately 10,000 exposures and gives the following conclusions of his observations.

1. That he could not discover that the original pathology plays any obviously determining role with respect to the efficiency of the treatment.

2. That improvement, when it occurs, is either astonishingly immediate, or is for some time latent, becoming apparent only after several treatments.

3. That improvement is at times followed by relapse, which has not in his experience ever reached the low level of the original deafness. The gain being apparently a progressive series of steps.

4. That improvement is most usually manifested in an increased power to interpret the conversational voice; next for music in its various orchestral forms; lastly for metallic sounds, such as the ringing

of church bells, telephone bells, and similar undetected sounds. Occasionally a patient will show increased acuity for everything except the voice, a situation quickly recognized by the tuning fork and acoumeter tests.

5. That the most striking subjective betterment is the very general disappearance of tinnitus aurium. This is most pleasing to the patient, as it is the first symptom, and a most distressing one, which is dispelled. There are cases, however, in which the tinnitus is not materially decreased, and in an exceptionally few instances there were complaints of increased head noises.

6. That his present records showed improvement, varying from slight degree to a complete cure, in not less than 60 percent of the cases treated, which must be regarded as a gratifying result.

That the treatment is entirely free from any harm to the patient. The first treatments given by him was mild dosage with low voltage but he advocates a heavier dosage especially in cases of lymphatic hyperplasia that accompanies some cases of Eustachian and middle inflammation. The applications are proportioned to the extent of the anatomical pathology revealed and repeated at long intervals.—Alex. R. MacKenzie.

THE BROADER ASPECTS OF THE BIRTH CONTROL PROPAGANDA AS IT SHOULD INTEREST THE PHYSICIAN—(By George W. Kosmak, M. D., American Journal of Obstetrics and Gynecology, Volume VI, No. 3)

Kosmak outlines the arguments used by these reformers, organized societies and leagues, as, first, that of overpopulation; second, that of the right of a woman to say how many children she shall bear and at what time.

The propagandists argue that the millenium could be reached if parenthood could be made voluntary rather than accidental. They claim the first step demands the removal of the words prveenting conception "from the federal obscenity laws." One of the leading organizations has for its object the education of parents so that the birth of children may occur with due regard to health, heredity, income, choice, environment and the well being of the community. This is to be brought about by public dissemination of so-called birth control information. All restrictive laws in Postal Code and State Codes, they maintain, should be wiped out.

In this country the birth rate has decreased in past decades. The so-called intellectual classes are now credited with about one child plus, a one or two child family as a standard will soon cause a halt or step backward in the national progress.

Two groups of propagandists are noted.

The first group composed largely of sociologists, literary persons, eugenists, publicists and a few physicians, who earnestly believe the element of chance of accident should be eliminated in the function of reproduction. They seek to replace harmful methods more or less clumsily used with scientific and harmless methods under the sanction of the law. They desire quality rather than quantity and seek family limitations.

A second more radical group is

made up of well meaning but misguided lay persons. They appeal by the yellow journal type of propaganda to seek legislation, to remove restrictions, so circulations of their doctrines may become general. To the physician who is in a position to be acquainted with the facts, the assurance of infallibility claimed by propagandists for their contraceptive measures verges on the ridiculous.

Taking up the medical side of the argument we may assume that there can be no question or difference of opinion regarding the necessity of contraceptive measures in certain cases. The tuberculous, the cardiac, the nephritic are only among the more common diseases that demand abstention. There are local and obstetrical situations that must be accomplished. This is a small group compared to the groups represented by the propagandist with economic and personal reasons as grounds for contraception.

It is no more illogical to forbid intercourse in certain constitutional diseases that it is to forbid certain things in the diet, or tobacco, coffee, etc. Artificial restrictions in the early months of married life may lead to subsequent sterility or actually hide its presence at a time when certain measures might be of some avail.

The fear of pregnancy in the unmarried is a very practical factor. As physicians we can scarcely discuss except from the narrowest viewpoint the moral side of the question. As physicians and particularly as obstetricians it devolves upon us, and perhaps the public may expect from us an expression of opinion for or against the general proposition of birth control.

Kosmak believe we cannot as physicians avoid our responsibility in the matter. We should not be expected to go beyond the point of propriety and reason in the giving of advice on this question and that physicians should object to the invasions of the field of medical practice by unqualified lay persons.—W. N. Rowley, M. D.

BARBITAL (VERONAL) INTOXICATION

Fifteen cases are reported by Irving J. Sands, New York (Journal A. M. A., Nov. 3, 1923), in which barbital was taken with intent to woo sleep. One patient took as much as 200 grains. Another took 40 grains of barbital daily for four weeks. In acute intoxication, the patient is usually comatose; the temperature may be subnormal, or moderately elevated; the pulse is either very slow or rapid; respiration may be lowered or increased. The face is flushed, the lips and finger tips are somewhat cyanosed, and the extremities are cold and clammy. The blood pressure is low. The urine in this state is diminished in quantity, of specific gravtiy somewhat higher than normal, and contains traces of albumin and granular and epithelial casts. The drug may be recovered from the urine. The tongue is heavily coated and the breath is foul. The bowels are constipated. Usually there is incontinence of urine and feces. The corneal and abdominal reflexes may be absent. The knee jerks are diminished, and in severe cases are often absent. The pupils may not react to light. Spontaneous con-

traction and dilatation of the pupils are often encountered, and this condition is regarded by some authorities as being pathogmonic of the condition. Ptosis and diplopia may be presnet. Amaurosis has been reported. Nystagmus is frequently encountered. The coma may last from twenty-four to seventy-two hours, and the patient may gradually regain consciousness. He then invariably will show ataxia, dyssynergia, a thick, drawling, indistinct speech, and he may complain of diplopia. Often a stage of delirium may supervene, and it is of the usual occupation delirium type. After consciousness is regained, the patient is irritable and at times ugly, making unusual demands from the nurses and physicians. Recovery may be complete in from two to three weeks. The danger signs in the acute period are the absent abdominal and knee reflexes, and broncho-pneumonic conditions. In cases of chronic intoxication, the patient presents a general cyanotic appearance, possibly with erythematous skin lesions. The gait is ataxic, and the station is unsteady, and there is a general dyssynergia. The speech is drawling and indistinct. Frequently there is omission of letters and syllables. The breath is foul, the tongue coated, and constipation persistent. The temperature is somewhat subnormal; the blood pressure is low, and the pulse slowed. The outline of the pupils may be normal, or may show inequality and irregularity. Reflex disturbances may be present. In chronic cases of barbital intoxication the mental attitude is irritable, the speech is somewhat incoherent and rambling, and perception is quite dulled. There is often a defect in attention, retention and association. Memory, especially for recent events, is poor. Emotional instability is common, and frequent outbursts of temper are encountered. The patients never have a clear insight into their own condition, and their judgment is faulty. They often complain of insomnia, and of general restlessness. They may become quite deluded, and may blame others for their failure of adaptation. They find excuses for unhappy states, but are never able to give sound logical reasons for their inability to meet situations adequately. Unless there is a definite history of taking barbital, diagnosis of the conditions is not always easy.

THE DREYER VACCINE

Since Prof. Georges Dreyer published the report of his work with defatted tuberculosis vaccines, the press, medical and lay, has been active in arousing new hope for the tuberculous, that the disease may be brought under specific therapeutic control. In a letter to the London Lancet, Fournet,[1] of the Institute of Microbiology in Saarbrucken, points out that experiments[2] made by him since 1921 have demonstrated the necessity of defatting the tubercle bacilli before using them as a specific vaccine. In this letter he states that the fat is removed from the bacterial organism by applying the vapor of ether. Fornet showed that in this process the biologic albumin of the

1. Fornet, W.: Defatted Bacterial Vaccines, Lancet 2:586 (Sept. 15) 1923.

2. Fornet, W.: Ann. de l'Inst. Pasteur 35:-797 (Nov.) 1921; Deutsch. Arch. f klin. Med. 138:229 (Jan.) 1922; Munchen. med. Wchnschr., May 11, 1923.

bacilli remains intact and unaltered, and he points out that the defatted tubercle bacilli form a stable emulsion, which is specifically precipitated by the serum of tuberculous persons. It produced complement deviation when brought in contact with serum from the tuberculous, and showed remarkable effects when used as an antituberculous vaccine. Fornet states also that Wassermann[3] confirmed these facts, using another process of defatting the tubercle bacilli.

Fornet contends that the work of Dreyer is essentially a confirmation of his own and Professor Wassermann's observations. However, certain observations of Professor Dryer have seemed particularly remarkable, according to Professor Fornet, namely: that the Dreyer tuberculosous antigen is said to withstand exposure for four hours and more to 100 C., at which temperature it must be boiled with formaldehyd and acetone if the tubercle bacilli are to lose their acid resistance.

"Up till now," says Fornet, "bacteriologists have always carefully tried to avoid as much as possible any alteration of the antigen contained in the living microbe, the immunizing power of which is demonstrated to us daily by practical experience. That Professor Dreyer's boiled tuberculous antigen still possesses the same immunizing power is a real discovery of highest theoretical importance, unless further investigation should prove that his good results are due rather to the effect of a protein than of a real immune-therapy."

3. Wassermann: Deutsch. med. Wchnschr., March 9, 1923.

It is the contention of some observers that the beneficial results following the administratioin of vaccines in various conditions may be the effects of a change in the body's reaction to infection brought about by the injection of a nonspecific protein. Should the suggestion of Professor Fornet, that the action of the Dreyer antigen is essentially of this character—a possibility which cannot be denied—be confirmed, its status as a therapeutic agent in the treatment of tuberculosis would become more definitely defined.—Jour. A. M. A., Oct. 6, 1923.

THE TREATMENT OF CANCER OF THE JAW WTH THE ACTUAL CAUTERY

A. J. Ochsner, Chicago (Journal A. M. A., Nov. 3, 1923), endorses the use of the actual cautery in the treatment of cancer of the upper jaw. He burns away tissue until he is certain that he has destroyed all of the diseased portion, and then he burns away as much more as he feels would have to be destroyed after the first recurrence, without regard to the deformity or to the plan that has to be employed later on in reconstruction, or to the trouble dentists will have in providing a proper artficial substitute for what has been destroyed. The instrument used for carrying out this operation is a small copper soldering iron about 1cm. square and 2 cm. long, heated to red heat in a gas flame such as tinsmiths employ. The heat carried by this metal when red hot is enormous, and reaches some distance beyond the tissue actually destroyed. It seems wise

to hold the iron in one place for a minute or longer in order to cook thoroughly the tissues rather than simply to pass it over the surface back and forth, because although the latter process will destroy the cancer tissue on the surface quite as perfectly, the heat cannot penetrate to the same depth. Consequently, if the cautery is not held in one place long enough to cook the tissues thoroughly, there may be small projections of cancer tissue, or slight invasions of cancer infection, which may escape destruction and may serve as a focus from which recurrence may have its beginning. In order to prevent the setting free of cancer infection, Ochsner avoids the use of the knife or chisel, even when the growth is extensive or when it invades the bones to a marked extent. In these cases, he first cooks the tissues, including the bone, and then cuts away the tissue that has been rendered harmless by the application of this tremendous heat. After cutting away all of the apparently diseased tissue that had previously been cooked, he invariably applies the red hot soldering iron again in order to make sure that no particle of infected tissue may remain. Every slightest portion of surface is gone over. Whenever possible, Ochsner burns away the entire growth and 2 cm. of tissue beyond in every directioin.

THE VALUE OF SACRAL NERVE BLOCK ANESTHESIA IN OBSTETRCS

According to Barnet E. Bonar, Salt Lake City, Utah, and William R. Meeker, Rochester, Minn. (Journal A. M.A., Sept. 29, 1923), the pains of labor may be entirely controlled by block of the second, third, fourth and fifth sacral and the anococcygeal nerves. Block of these nerves by the transsacral method, plus a low epidural injection, gives satisfactory anesthesia, but the epidural method alone is the more practical. The relaxation of the pelvic floor produced by these methods is a distinct advantage. Most operative and manipulative obstetric procedures may be painlessly performed under sacral nerve block anesthesia. In normal delivery, the abolition of the pain reflex also takes away the voluntary effort of bearing down, which loss must be compensated for by other means. The feature of greatest difficulty is the selection of the proper time to induce anesthesia. In our series, the maximum benefit was obtained by induction when dilatation of the os had reached at least 7 cm. in primiparas and at least 4 cm. in multiparas. The field of usefulness of this means of anesthesia in normal delivery will greatly increase when a means has been devised to prolong the anesthetic action of an epidural injection for at least six or seven hours. Such an anesthesia should find widespread use, and might become the anesthetic of choice in normal delivery.

SCOPOLAMIN-MORPHIN SEMINARCOSIS

O. H. Schwarz and O. S. Krebs, (Journal A. M. A., Sept. 29, 1923), use scopolamin-morphin seminarcosis as a first stage measure. When the uterine contractions are strong and occur at regular intervals, and usually when there is at least two fingers' dilatation in the primiparous patient, seminarcosis is be-

gun. In the multiparas the procedure is usually begun with the first regular contractions that are painful. The patient is always prepared for delivery before seminarcosis is begun and, after the usual preparation, is sent to one of the delivery rooms. The initial dose of scopolamin is 1/133 grain, or 1.5 c.c. of the scopolamin stable-Roche. With the first injection, separately or combined, is given ½ grain of morphin-narcotin meconate, or 1/6 grain of morphin sulphate. These injections are given subcutaneously. The first injection usually causes dryness of the mouth and throat, and a flushed condition of the face. The patient is encouraged to drink water freely at this stage. The second injection is given usually forty-five minutes after the first one. This injection is usually as large as the first injection—the morphin-narcotin meconate or morphin is never repeated after the first injection. Before the second injection and before each contemplated subsequent injection, the patient is requested to put the index finger to the tip of the nose, the eyes being covered. If she succeeds in doing this promptly, she still retains locomotor coordination and the contemplated injection is given; however, if she moves her finger and vaguely misses the mark, she has lost locomotor coordination and the injection is omitted, or the dose is reduced, for the patient has the desired amount of the drug. In most cases this stage is reached shortly after the third injection, but in not a small number before the time of the third injection. The third injection is usually given forty-five minutes after the second one. If the patient at this time shows signs of going under the influence of the drug, such as drowsiness or sleeping between pains, but still manifests locomotor coordination, the third injection is reduced to 1/200 grain or less for the average woman. If no such signs are present, the original full dose of 1/133 grain is given. After the third injection, most patients remain sufficiently scopolaminized for two hours or longer. At the expiration of this period, full cervical dilatation has taken place in most cases and further injections are unnecessary and are to be avoided. The authors feel that the methods for the conduct of labor as they use them can be carried out only by trained obstetricians in a maternity of moderate size, and that they are not to be attempted in poorly appointed homes by any one, or under any circumstances by the average general practitioner. Furthermore, they are to be used only by those who are willing to watch the patient closely from the onset of labor until it is terminated, or by those who have an organized hospital staff or trained assistants at their command. The method is particularly applicable to the primiparous patient, but can be used very successfully in many multiparas, or also in multiparas in a modified way. The method cannot be used to the exclusion of the other methods of analgesia and anesthesia, but should be used in combination with these other means. The method in no way displaces anesthesia at the time of expulsion; chloroform in very small amounts, or nitrous oxid or ether are used at this time, making any operative procedure readily carried out without resistance on the part of the patient and under strictly surgical

conditions. In primiparas, when seminarcosis is employed, labor is best terminated by episiotomy and a perineal forceps delivery; this procedure, however, is by no means necessary, as many of the patients will deliver spontaneously. The chief disadvantage of the method is that it is time consuming, and that the patient must be constantly watched throughout labor by those who are familiar with the method; few busy obstetricians are willing to give the required amount of time and individual attention to one patient.

THE DIAGNOSIS OF EARLY BREAST TUMORS

The chief hope of increasing the number of cures of cancer, Joseph C. Bloodgood, Baltimore (Journal A. M. A., Sept. 15, 1923), says is the shortening of the duration of the disease. Apparently this can be accomplished only by the education of the public—giving them correct information. If the lump felt by the patient proves to be cancer, its duration is the only controllable factor in the ultimate cure. If the lump felt by the patient is not cancer, it remains curable no matter how long its duration, and becomes dangerous only when it changes into cancer. Its removal, therefore, is protection from cancer. The largest percentage of five-year cures and the smallest percentage of recurrences after five years are in the group in which the known duration of the lump was one month or less. The percentage of five-year cures gradually falls, and the percentage of recurrences after five years gradually rises with each additional two-month period of time, up to three years. At present the only controllable factor for the cure of cancer of the breast is the duration of the lump. Bloodgood describes in detail the method of examination of each patient who complains of a lump in the breast. When the patient has a definite lump and one concludes, from the palpation of the lump, or because one has elicited atrophy of the fat, fixation of the skin, dimpling of the skin, or retraction or fixation of the nipple, that it is probably malignant, one should perform the complete operation for cancer without an exploratory incision, because the chances are very small that the lesion will prove to be benign. Of the early signs of cancer, the most difficult to interpret is the palpation of the lump only. The next is that of the lump plus one other of the earlier signs—atrophy of the subcutaneous fat, slight fixation or dimpling of the skin, and definite retraction or fixation of the nipple. It is important to remember that the benign lesion is rarely associated with more than one of these definite signs. The more of the earlier signs of cancer that can be determined, the greater the chance of malignancy and the greater the justification of a complete operation without exploratory incision. Having felt a definite lump, or being uncertain as to an indefinite lump, and having been unable to find any of the early signs of cancer, or being a little suspicious of the one early sign of cancer, one should explore the palpable area. If the lump is as large as, or larger than, a twenty-five cent piece, not deeply situated and not in a huge, fatty breast, one should cut slowly down on it, clamping all bleeding

points. The tumor may be exposed directly beneath the subcutaneous fat, or one may have to cut through breast tissue to reveal the palpable area. When it is a small lump, deeply situated, or one in a very large, fatty breast, the palpable area should be excised with a good margin of subcutaneous fat and breast tissue and place in the wound an alcohol sponge, then take the mass in the left hand and bisect it with the knife, study its gross pathology, and cut out a piece for frozen section. When one explores the tumor by the first method and the exposed tissue suggests malignancy, one should examine it carefully, palpate it, cut out a small piece, swab the wound with pure phenol (carbolic acid) followed by alcohol, and then place in the wound a bit of gauze wet with a 50 per cent solution of zinc chlorid. Then one should study the little piece cut out and have a frozen section made. If one's conclusions are that it is a definite cancer, or suspicious of cancer, one should close the skin over the zinc chlorid gauze in the first method, and over the alcohol gauze in the second method, and proceed with the complete operation for cancer. If one's conclusions are that it is benign, one should remove the zinc chlorid gauze, excise the benign tumor with a margin of breast tissue, and close the wound; or, in the second method, remove the alcohal gauze and close the wound. The cautery for exploratory incision apparently has no advantages over the methods described. It interferes with the rapid decision as to the nature of the tumor.

MANAGEMENT OF THE FEMALE URINARY BLADDER AFTER OPERATION AND DURING PREGNANCY

A study devoted to postoperative care of the urinary bladder, with especial consideration of the part played by residual urine, has been made by Arthur H. Curtis, Chicago (Journal A. M. A., April 21, 1923), throughout the period of convalescence of 1,595 female patients subjected to serious operations. Use of the catheter has been avoided when possible, but no patient has been allowed to suffer from distention. Residual urine has been present after the return of spontaneous micturition in more than 64 per cent of all repeatedly catheterized patients. The most important principle in our treatment of such cases has been the daily passage of a catheter, immediately after urination, until residual urine is no longer present. Only three of those who were catheterized daily until the return of normal function developed urinary tract infection. These three subsequently showed residual urine after they were thought to have returned to normal, and it is believed that lack of treatment during this time accounts for infection. Laboratory study of urine from patients subjected to postoperative catheterization reveals that there may be temporary cystitis. This invariably—and usually very promptly—disappears if freedom from residual urine is maintained. Instillation of ⅛ per cent silver nitrate and administration of urinary antiseptics by mouth are helpful adjuncts in the treatment.

Strict avoidance of the use of the catheter after all operations, despite distress, would perhaps reveal equal freedom from infection; but this plan cannot be followed without much suffering to many patients. Moreover, animal experimentation indicates that if bladders are allowed to distend and overflow, considerable back-pressure destruction of kidney tissue results. Clinical evidence indicates that residual urine occurs very often in pregnant women. The notable frequency with which it is present in those with pyelitis of pregnancy suggests that ascending infection from this source is of considerable importance.

A REVIEW OF A GROUP OF PROFESSIONAL DONORS

The remote effects of donations of blood on donors are reviewed by Herbert Z. Giffin and Samuel F. Haines, Rochester, Minn. (Journal A. M. A., Aug. 18, 1923). Out of more than 200 donors "on call" at the Mayo Clinic, a consecutive series of eighty-four were available for personal study concerning their condition three weeks or longer after donations, and conclusions were drawn: 1. Multiple donations of 500 c.c. when given at intervals of four or five weeks, are not harmful in any way that could be determined. 2. Twenty-seven per cent of the donors felt definitely better after multiple donations than they had before, and the general health had deteriorated in none of them. 3. Fifty per cent had gained in weight, and only a few of the series had lost in weight. Nineteen had gained more than 10 pounds (4.5 kg.), with an average goin of 20 pounds (9 kg.). 4. Women who have acted as donors often develop a definite anemia, and are slower than men to recover their cell volume and hemoglobin. Sixty-six per cent of the women of the series had slight anemia. 5. A study of the blood volume in five donors, more than three weeks after donation, revealed no significant changes in plasma volume or cell volume. 6. Seven patients with hypertension had no reduction of blood pressure following multiple donations. Many of those with normal blood pressures and several of those with hypertension had a slight elevation of blood pressure following multiple donations. 7. The history of prospective donors should be taken as a routine, and they should be subjected to physical examinations, including the Wassermann test and complete blood count, before they are placed on the list of approved donors. An inquiry into the social habits of the donor is very important. Moreover, a general survey of the donor's condition, and a repetition of the Wassermann test and blood count should be made at least every year, and preferably every six months. 8. More detailed information concerning the remote effects of donations is desirable, and may prove to be important from a physiologic standpoint.

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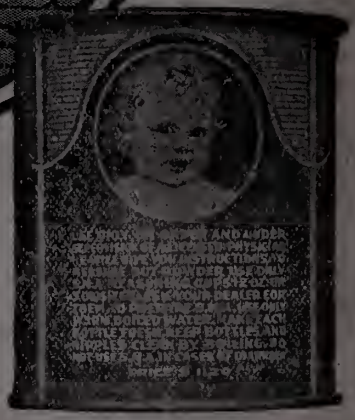

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